

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Process Documentation Policy/Process Title: Adhoc Processes	
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1 Adhoc Processes (AHP)

Adhoc processes are performed with the purpose of changing components of the MIS/DSS production environment. Production components that may change range from maps and convert programs to server and mainframe hardware and software. Changing the production environment is done only when that change has been approved through the project's change control process. A brief overview of each adhoc process is presented below.

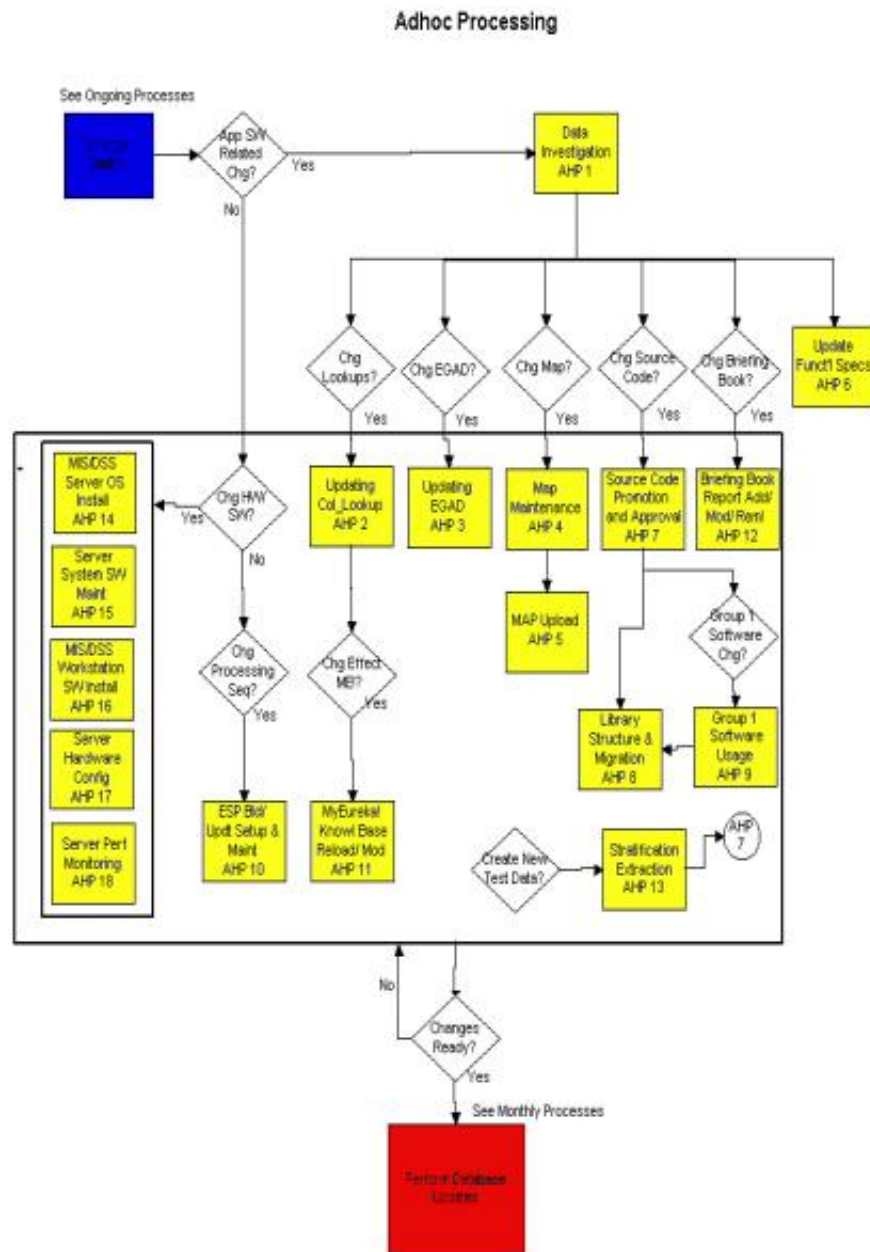
Process #	Process Name	Brief Overview
AHP 1	Data Investigation	The Data Investigation process is a set of guidelines used to research and analyze new data input, unexpected results found in testing, and proposed changes to existing processing of data. A direct result of Data Investigation is the itemization of changes that must occur to implement an Investigation Request (IR). See the process named Change Control.
AHP 2	Updating Col_Lookup	A change may be required to the COL_LOOKUP table. The Column Lookup Table is a DataScan support table. It provides information on field values and their descriptions for database fields. The DataScan system accesses this table when users click on 'Valid Values' in the Help/Fields module. This module then lists the field values and their descriptions from the COL_LOOKUP Table.
AHP 3	Updating EGAD	A change may be required to the EGAD Table. The Element Generation and Definition Table and EGAD Detail Table are DataScan support tables. They serve as a data dictionary for the Case, Claims, Episode, and Population table as well as for non-core tables.
AHP 4	Map Maintenance	A change may be required to a Map. Maps are used in the convert programs to map one value to another or to check for valid values during the convert processing. Maps are also used to convert a Medi-Cal value to a MEDSTAT value. Occasionally new values are added, old values deleted, or a value should be mapped differently.
AHP 5	Map Upload	The maintenance of Maps (see AHP 4) is done within Excel spreadsheets. These spreadsheets must be transferred (uploaded) to the mainframe environment in order to actually be used during the conversion process.
AHP 6	Updating Functional Specs/Background Documents	Functional Specifications describe in textual format the system design. These specifications not only document the design for purposes of end user review and confirmation, but are a formalization of programming specifications.

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Process #	Process Name	Brief Overview
AHP 7	Source Code Promotion and Approval	Source code related changes must be made in a development environment, tested in a test environment and ultimately migrated to the production environment. This process, in conjunction with the process named Library Structure and Migration, defines the steps necessary to promote and migrate changed source code components through the steps from development to production.
AHP 8	Library Structure and Migration	See Brief Overview for AHP 7.
AHP 9	Group 1 Software Usage...	The MIS/DSS utilizes products from Group1 software to validate addresses and to derive latitude/longitude information for eligibility and provider records. Periodically, data files and programs are updated by Group1. This process describes the efforts required to install these new items.
AHP 10	ESP Build/Update Setup and Maint	ESP (Execution Scheduling Processor) software enables the setup of batch jobs to execute automatically one after another (or in parallel) based upon defined precedents. A change may be required to the ESP setup to support a new batch job, new dataset inputs or a change in execution order to improve performance.
AHP 11	MyEureka! Knowledge Base Reload and Mod	In order to present information contained in the DB2 tables in a user-friendly way, a file called MyEureka! MetaData is customized to include folders and fields that represent the DB2 tables and fields.
AHP 12	Briefing Book Report Addition/Modification/Removal	The Briefing Book in Panorama View contains a variety of reports that add analytic value to the MIS/DSS system. As Medi-Cal trends change over time, the need to add, change or delete reports may occur.
AHP 13	Stratification Extraction	The volume of data included in the Medi-Cal MIS/DSS is extremely large. In order to make and test substantial changes in the conversion programs and jobs that create the warehouse, a set of programs has been developed that stratify (randomly select) input Eligibility and Claim files in order to provide a viable means to sufficiently test the design with a smaller set of data. A design change may require a change to the stratified test data set.
AHP 14	MIS/DSS Server Operating System and Software Installation	This process describes the steps necessary to install the NT server operating system as well as specific application software on each NT server.
AHP 15	Server System Software	The MIS/DSS NT servers require periodic updates to system software. These updates result from software patch

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Process #	Process Name	Brief Overview
	Maintenance	releases provided by the hardware vendor. This process describes the activities that are performed to implement these changes while at the same time, minimizing the risk of server downtime.
AHP 16	MIS/DSS Workstation Software Installation, Upgrades, Patches	The purpose of this process is to denote the necessary requisite hardware and software configurations and document the necessary steps for the proper installation of a desktop workstation containing MIS/DSS applications.
AHP 17	Server Hardware Configuration	This process describes the current hardware configurations on the project NT servers and the associated maintenance steps.
AHP 18	Server Performance Monitoring/ Reporting	This process describes the actions taken to monitor the project NT servers to ensure that they have sufficient capacity to meet project needs for interactive usage and installation/update processing.



Color Coding Key

Blue	Ongoing	Monthly	Annual
Yellow	Standards	Tech Reference Guide	

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1. Briefing Book Report Addition/Modification/Removal

1.1 Overview

The Briefing Book in Panorama View contains a variety of robust reports that add analytic value to the MIS/DSS system. As Medi-Cal trends change over time, the need to add, change or delete reports may occur. This document describes the process in which such reports are added, changed or deleted from the Briefing Book.

1.2 Purpose

The purpose of this document is to create a documentation standard for the process of adding, changing, or deleting reports in the Briefing Book.

1.3 Scope

This document will be used by any MIS/DSS project team member who will be responsible for adding, changing, or deleting reports in the Briefing Book. The actual generation of any new reports and posting these said reports to the Briefing Book are outside the scope of this document.

1.4 Responsibility and Enforcement

The MIS/DSS Project team is responsible for the enforcement of this document.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

A general overall analytic understanding of the both the capabilities and limitations of the MEDSTAT applications and Medi-Cal database contents is required to determine appropriateness of requests for the creation of new reports.

1.7 Entry Criteria

This process is entered any time a new policy or process needs to be drafted or finalized.

1.8 Procedure Steps

1.8.1 To add a report to the Briefing Book:

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- The end-user completes the Panorama Briefing Book Request Form and submits it to the MEDSTAT Analytic Support Team (address included on form), or the Project Office requests that an IR be opened.
- The MEDSTAT Analytic Support Team creates an IR and notifies the requestor of receipt.
- The MEDSTAT Analytic Support Team forwards the request to the DHS MIS/DSS Project Team with a recommended action.

The DHS MIS/DSS Project team reviews the request and assigns one of the following dispositions:

- Accepted: The report meets the MIS criteria and will be submitted to MEDSTAT for inclusion into the Briefing Book. In addition, the MIS/DSS Team assigns a priority, and returns the request to the MEDSTAT Analytic Team.
- Data Not Available: The report meets the MIS criteria, but the data is not available to adequately answer the stated question(s). This may be a report that may be added at a later date when the information is made available.
- Need More Information: The report may meet the MIS criteria, but the request is returned to the requesting user for additional information.
- Not Accepted: The requested report does not meet the MIS criteria or a different solution may be applicable.
- The MEDSTAT Analytic Team notifies the original requestor of the disposition, updates the IR and, if appropriate, the MEDSTAT Analytic Team requests additional information or clarification.

1.8.2 To change an existing Briefing Book report:

Once reports have been added to the Briefing Book, changes to existing reports may be necessary. The same process to request a report should be used to change a report. Reference the report number on the Panorama Briefing Book Request Form. Certain types of changes may cause additional technical or administrative effort to be expended. These changes may result in a new report being added to the Briefing Book. Potential changes include:

- Format changes (adding, removing or changing the order of columns or graphics)
- Sort sequence changes
- New or modified data source(s)
- Modified data selection criteria
- Modified data aggregation criteria

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1.8.3 To delete an existing Briefing Book report:

As experience is gained in using the Briefing Book, an individual user may determine that a previously defined report is no longer useful. To request a report be removed from the Briefing Book, the Panorama Briefing Book Request Form should be completed and submitted to the MEDSTAT Analytic Support Team (address included on form). Because the report may be used by a variety of people, an overall evaluation of the report's utility and value will be necessary. The DHS MIS/DSS Team will consider the impact on all users when evaluating a request to delete a report. At this point the request would reference the Change Control process.

1.9 Exit Criteria

Approval of IR resolution.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

The Briefing Book Request Form is the required documentation to initiate an add, change, or deletion to Briefing Book Reports.

1.11 Reference Material

The Functional Specification for Panorama View Briefing Book, Phase 5 is the reference material used in creating this process.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
5/2/2000	Tracy Meeker	Policy/Process Established
3/9/2001	Robert Joy	Added new references to use of IR tool
3/9/2001	Robert Joy	Reviewed for errors/ommissions

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1 COL_LOOKUP Maintenance

1.1 Overview

The Column Lookup Table (COL_LOOKUP) is a DataScan support table. It provides information on field values and their descriptions for database fields. The DataScan interactive software allows users to access not only DataScan core data tables, but custom tables as well.

The COL_LOOKUP Table only has three columns:

- PC Field Name – Contains the PC Field Name value in the Alias field listed in EGAD
- Field Value – Contains the field value
- Field Description – Contains the description for the field value

The DataScan system accesses this table when users click on ‘Valid Values’ in the Help/Fields module. This module then lists the field values and their descriptions from the COL_LOOKUP Table. If the field is not in the COL_LOOKUP Table, ‘Valid Values’ are grayed out in the Help/Fields module.

Other modules accessing the COL_LOOKUP Table are:

- Help/Populations by Field
- Reports/Clinical/Inpatient and Outpatient
- Custom Reports
- PMW

Up to 2,000 field lookup values can be added for each custom field included in COL_LOOKUP. Every time COL_LOOKUP is modified, the new table is downloaded to the PC at logon.

1.2 Purpose

The purpose of this document is to create a documentation standard for the process of adding, changing, or deleting items from COL_LOOKUP.

1.3 Scope

This document applies to the addition, modification, or deletion of items from the COL_LOOKUP table by a Data Manager.

1.4 Responsibility and Enforcement

The Data Management team is responsible for adding, changing, or deleting items from the COL_LOOKUP table.

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1.5 Policy Statement

The objective of this procedure is to ensure all additions/changes/deletions are correctly implemented in the COL_LOOKUP Table.

1.6 General Considerations

Every time the COL_LOOKUP Table is modified, the new table is automatically downloaded to the PC when a user runs DataScan. Every 1,000 rows on COL_LOOKUP adds a minute or more of download time. With this in mind, every effort should be made to consolidate additions/changes/deletions to the COL_LOOKUP Table, so the table will not be downloaded as frequently to the users PC.

1.7 Skill Requirements

The skills required to perform the Col_Lookup Maintenance Process are:

- Basic knowledge of TSO
- Familiar with the IR Log

1.8 Entry Criteria

When an addition/change/deletion must be made to the COL_LOOKUP Table, the Data Manager initiating the change must open an Investigative Request (IR). The IR specifies the environment to change, what the change is, the effective date of the change, and any special instructions. The IR will go to Change Control for approval and then a task will be assigned to the person responsible for making changes to COL_LOOKUP.

1.9 Procedure Steps

The major activities of the process are described in detail.

1.9.1 Navigating to the COL_LOOKUP Maintenance Screen

- From the ISPF Primary Option Menu, type on the command line, 'h.db'.
- On the HWDC Data Base Products Main Menu, enter option '1 – DB2I/SPUFI' and either 'HMTD' or 'HMPD' for DB2 ID. Use 'HMTD' for Test environment and 'HMPD' for Production
- On the DB2I Primary Option Menu, type on the command line, 'tso mdstmenu'.
- On the MEDSTAT System Table Maintenance Menu, make sure the 'Current System Environment' is correct. If it needs to be changed, enter a 'D' for 'System Default Maintenance'. Change the environment and continue.
- To enter the Column Lookup Table Maintenance screen, enter a '7'.

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1.9.1.1 Adding a Row

- For 'Select Action', enter an 'A' to 'ADD row'.
- Type in the PC Field Name. This should be in all capital letters.
- Type in the Field Lookup Value. This field is limited to 14 characters. The value should be right-justified if it is a non-character field and left-justified if it is a character field.
- Type in the description, which cannot be more than 45 characters. The description will appear exactly as typed, with upper and lower case letters. Press enter.
- A message will display 'Add Successful'.

1.9.1.2 Modifying a Row

- For 'Select Action', enter an 'F' to 'FIND a row'.
- Type in the PC Field Name.
- Type in the Field Lookup Value. The value must be exact, with leading zeros and capitalization where necessary. If the field is non-character, the value must be right-justified. If the field is character, the value must be left-justified.
- Press enter and the description for that value will appear.
- Type over the existing description and press enter.
- A message will display 'Modify Successful'.
- Only descriptions may be modified. A Field Lookup Value cannot be modified. The incorrect value must be deleted and the new value added.

1.9.1.3 Deleting a Row

- For 'Select Action', enter an 'F' to 'FIND a row'.
- Type in the PC Field Name.
- Type in the Field Lookup Value. The value must be exact, with leading zeros and capitalization where necessary. If the field is non-character, the value must be right-justified. If the field is character, the value must be left-justified.
- Press enter and the description for that value will appear.
- Go back to 'Select Action' and enter a 'D' to 'Delete row'. Press enter.
- A message will appear asking for verification to delete.
- Press enter and a message will display 'Delete Successful'.

1.10 Exit Criteria

After additions/changes/deletions are made to the COL_LOOKUP Table, the person making the changes must mark the task as complete in the IR Log. The person initiating the addition/change/deletion must test it and document the results in the IR.

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1.11 Forms and Instructions

An IR must be completed by the person initiating the addition/change/deletion to COL_LOOKUP. The IR is then routed through Change Control for approval.

1.12 Subject Examples

1.13 Reference Material

The Data Management Guide

1.14 Policy History

Established/Revision Date	Established/Revised By	Change Description
5/8/00	Tina Poyner	Process Established
3/8/01	Carrie Swanson	Removed references to the 'Pink Sheet' which is no longer used.

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1. Data Investigation

1.1 Overview

Data Investigation is the term used to describe activities associated with the research and analysis of data. The Data Investigation Process is the set of guidelines used to research and analyze new data input, unexpected results found in testing, and variations found in production validation and reporting trends. Each of these conditions provokes questions about the data that should be answered to ensure that the MIS/DSS conversion and data enhancement rules are valid and effective for the data in question, and to ensure user understanding of the impact of data outliers in the MIS/DSS database.

When a new data source will be submitting raw data input to the MIS/DSS database, the MEDSTAT *Data Investigation Guidelines* activities should be done for each of the *Standard Field Types* available. These activities will help to reveal unexpected field values and data formats. If unexpected values or formats are found in the new data it may raise questions about the conversion rules for the new data. These questions should be addressed to ensure the correct interpretations of the new data; and, if necessary, design modification may be considered once the new data is understood.

When system testing and database validation tests do not meet the expected results, questions arise about the root cause contributing to the unexpected findings. Data Investigation activities can help to answer these questions and help to identify the steps that should be taken to mitigate or at least communicate the impact of any data issues that may be found.

And, when there are variances found in the data during the validation and trending of the routine update processes, questions will also arise. The client will need assurances as to whether or not the anomaly in the trends are due to the data or in the system. Again, Data Investigation can help to identify where the anomaly is and, ultimately, what steps can be taken to mitigate the impact of the issue.

Anytime there is a question about the data, it is important to document the question and the steps taken to answer the question. For new data sources, we look for standard data values and formats, if the standards are not found, or if testing and/or trending reveal unexpected findings then we do further research that is tracked and documented in a Data Investigation Database. The data Investigation Process document refers to the MEDSTAT *Data Investigation Guidelines* for specific direction for the *Standard Field Types* process. This document will provide direction on when and how to use the Data Investigation Database to track the research and findings of Data Investigation activities. This document will also provide general guidelines and resource references that are associated with the process of Data Investigation for the Medi-Cal MIS/DSS Project.

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1.2 Purpose

The purpose of this document is to provide a standardized means to prepare, perform, and document the data investigation process.

1.3 Scope

This document applies to the data investigation performed by a Data Manager.

1.4 Responsibility and Enforcement

The Data Management team is responsible for performing data investigation.

1.5 General Considerations

Data Investigation could be different with each research request that is identified. Data Investigation activities can easily take on a life of their own with endless hours of information gathering taking place. It is important, therefore, to set the scope of each Data Investigation activity before it is launched. The individual tasked with the Data Investigation activity, the investigator, must clearly understand the question that must be answered, the data available with which to perform the research, and the individuals and tools with which to work to successfully bring closure to a request for Data Investigation.

Factors that will impact the Data Investigation Process include: the volume of data, the rate of occurrence of the data issue, the skill level and tools available to the investigator, and the importance of the data to the client in their MIS/DSS database.

On the Medi-Cal MIS/DSS Project the raw data input files are received on tapes, and the claims and eligibility files are especially large. We typically use COBOL programs or SAS to examine these files. The other input files are smaller and more flexibility can be used in how the data is investigated.

Earlier in the project, 'DQI' (Data Quality Investigation) COBOL programs were written to help to quickly evaluate new data for the Capitation, Claims, and Eligibility input. It is worth the effort to fine tune these DQI programs, when there are record layout changes or if certain design rules change, because they help to quickly assess new raw data input for the standards we expect in critical fields.

1.6 Skill Requirements

The skills required to perform the Data Investigation Process are:

- Basic knowledge of TSO
- Familiar with Access Databases
- Knowledge of SAS to query raw data

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- Familiarity with Medi-Cal data
- Familiarity with DQI, Edit, Splitter, and other Build Reports

1.7 Entry Criteria

The Data Investigation Process can begin with either the receipt of new raw data input, or by finding unexpected results in testing, or by finding variations in production validation and reporting trends, or in some cases when questions are raised by the client or members of the project.

A task should be opened in the Data Investigation Database, to define the scope of the research, before the investigation activities begin.

1.8 Process Steps

There are slightly different process steps for Data Investigation activities for *New Data From a New Data Source* than for the Data Investigation process used against previously ‘known’ data. Therefore, these two process steps are outlined separately.

1.8.1 New Data From a New Data Source Data Investigation Steps

1. Receive a sample file of the new data from the new data source (typically a full month of update data for the new data source).
2. Operations runs ‘Turnaround Report’ and loads file to the mainframe (or the LAN).
3. A Data Investigation Task is opened in the Data Investigation Database. This will usually be done by the DM responsible for the research of the lead DM.
4. Assign an investigator - this is usually a member of the DM team.
5. Download the data to either a file on the mainframe or on the LAN so that it is in usable format for Data Investigation activities – this will be facilitated by the investigator and may involve assistance from operations staff or the developers.
6. If the input is F35 Claims data, run the DQI COBOL programs. This will be facilitated by the investigator and will be executed by the developers. The Pre-Split DQI programs are current for Phase 5 formats, the Post Splitter programs may need to have the record layout updated.
7. Run SAS queries using the *Standard Field Type Data Investigation* profiles for fields not evaluated by the DQI program. This is done by the investigator.
8. Document the Findings of the profiling queries in the Data Investigation Database. This is done by the investigator.

1.8.2 Data Investigation Steps – For Research other than New Data

1. Identify a Data Investigation Task in the Data Investigation Database detailing the *Question Asked*. This could be any project team member but most likely will be the lead DM or DM responsible for the specific area of the database system.

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2. Assign an investigator to the task. This is usually done by the lead DM.
3. Identify the best source data to use for the research (if not already selected by the individual who opened the DI task). This is done by the investigator.
4. Fill out the Data Investigation Database (see section 1.8.4). This is done by the investigator.
5. Conduct the research and analysis (see sections 1.8.3-1.8.6 for more information). This is done by the investigator.
6. Document the Findings (if necessary open an IR). This is done by the investigator.

1.8.3 Data Investigation of Standard Field Types

The MEDSTAT Standard Field Type Data Investigation Guidelines are found on the MEDSTAT Intranet at:

http://home.medstat.com/dmos/data_management/datainvestigation/guidelines.thm

The Standard Field Type guidelines address specific data formats, values and thresholds that should be found in each of the critical input fields used in the MEDSTAT applications. These include, but are not limited to, guidelines of when to run frequency distributions on categorical fields, min/max/sum on financial fields, how to look at critical date fields (service and paid dates), and value thresholds to look for in other critical CORE fields.

On the Medi-Cal MIS/DSS Project the findings of such research are stored in the Data Investigation Database. Techniques that may be used to conduct these Standard Field Type Data Investigation are discussed below.

1.8.4 The Data Investigation Database

The Data Investigation Database is maintained in an Access database on the LAN. The Data Investigation Database allows for easy tracking and referencing of Data Investigation activities and most importantly the research findings. Some components of the Data Investigation Database include: Question Asked, Method / Approach, and Findings / Recommendations, as well as, other data elements useful for the accessing and reporting of the Data Investigation information stored in the database. Currently, the Data Investigation database is stored in the following directory:

W:/Ca Med/Datamgmt/Phase 5/Data Investigation

The data elements stored in the Data Investigation Database are described below:

- **DL Item #:** This is a tracking number automatically assigned when a new Data Investigation task is opened.
- **Priority:** The priority of the Data Investigation task must be assigned by the user as either 1-High, 2-Medium, or 3-Low.

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- **Status:** The status of the Data Investigation task is maintained from the time the task is opened to the time that it is closed. The user selects the most appropriate status from the following options.
 - **Not Started:** This is the status used when the task has been opened but none of the activities related to the task have yet begun.
 - **In Progress:** The status used to indicate that the activities have been initiated. This status will remain until research findings have been identified.
 - **Closed – Future Action Required:** This is the status used to describe research that has been completed but that the findings reveal other non-Data Investigation activities that must take place.
 - **Closed:** This is the status used when the Data Investigation activities are complete, all findings are documented, and no other related actions are anticipated.
- **Investigator:** The initial of the individual to whom this Data Investigation task is assigned.
- **Date Open:** The date the Data Investigation task is opened.
- **Date Closed:** The date the Data Investigation task is assigned the status of Closed or *Closed-Future Action Required* (if used).
- **Phase:** This is really two data elements to provide for the indication of the Phase the task is opened and the Phase the task receives a *Closed* status. Though phases were applicable only during the initial MIS/DSS contract period, the value in this field remains important.
- **IR Number:** If there is an IR to which the Data Investigation findings are relevant, that IR Number is stored in this field.
- **Analysis Data Used:** This is where we identify the data source (i.e., Production 4.3 or Testbase 5.1) from which the research is to be conducted. This may be more than one data source and multiple identifier can be stored.
- **Online File Location:** This is used to identify the specific Mainframe filename for the data source described above.
- **Input Field Name:** This is the tag name used for the specific field being investigated. This is only for fields on the raw data input.
- **PC Field Name:** This is the MIS/DSS database PC field name used after the raw data has been converted.
- **Table Name:** This is for the MIS/DSS database table that is impacted by the research.
- **Supporting Documentation:** This is used to identify where supporting documenting, relevant to the task, is stored.
- **Question Asked:** This is where the research task is described in detail. The research is typically triggered by an unanswered question about the data. But it may also be an instruction to gather or track a data statistic or it could be something else. The goal of the Data Investigation task should be made clear through the information placed in this database field.
- **Method / Approach:** The way in which the research is being done should be documented here. This documentation is intended to aid others that reference the database to understand 'how' the research was done. Understanding 'how' the research done is important so that the correct interpretations of the results can be made and if necessary it can be duplicated or slightly modified for other research.

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- **Finding / Recommendation:** The investigator should sum up conclusions derived from the research that is conducted. This should provide the answer to the *Question Asked* as well as what the next steps should be.

1.8.5 Data Investigation Input Files

There are nine input files that might be considered for Data Investigation. The table below identifies these input files used in the Medi-Cal MIS/DSS, as well as, Customer Data Dictionary available as a resource.

Input File	Data Medium	Target MIS/DSS Table	DED Available
F35-File	Tape	Claim Drug Case Episodes	Yes
MEDs File	Tape	Eligibility DHS Core Populations	Yes
Provider (Managed Care & Mental Health)	Tape	Provider Background Provider	Yes
PMF Provider (Medical & Dental Provider)	Tape	Provider Background Provider	Yes
Capitation	Tape	Capitation	
Managed Care Plan-Financial	Tape	Managed Care Plan Financial	
Managed Care Plan-Enrollment	Tape	Managed Care Plan Financial	
Managed Care Plan Member Months	Tape	Managed Care Plan Financial	

1.8.6 Data Investigation Guidelines and Techniques

In this section of the document we will discuss some general guidelines and techniques that can be used in Data Investigation. This document will not get into the detail of what specifically to look for in each data element, that is covered in the MEDSTAT Data Investigation Guidelines for Standard Field Types.

Raw Data Input-F35-File

SAS has proven to be the most effective utility to use to write queries against the larger raw data input files (provider, claims, and eligibility). If space is available and the input file is not too large, have the developers copy the Data Investigation file to disk, otherwise you can use the tape files to do your research.

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When looking at the F35-File, because this is a variable length record and because the records will ultimately be split between the Claim and Drug table, most Data Investigation is easier to do if the raw data input is run through the Splitter program. After being run through the Splitter, the record length becomes fixed, with the Header data replicated across every detail line. The records are split into two files, one that is targeted for the Drug Conversion and one targeted for the Claim conversion.

The developers can easily run the Data Investigation file through the Splitter program for the investigator. The investigator needs to remain aware of the impact of the Splitter process. In some cases, input claims may have some of the claim details split between the drug and the claim file (this will only happen for claims with Claim Type = 4). Another important thing to remember is that after the Splitter, the Header information is replicated on every claim detail record, therefore, doing totals on the Header Financials would be misleading. The investigator should only use the first detail segment when researching the Header Financial data from the output files from the Splitter program. For other information about how the Splitter process affects the input claim file see *The Splitter Background Document* functional specs.

There are also the DQI programs that can be run for the F35-File, the Eligibility, and the Capitation files. There are three DQI programs for Claims, one is Pre-Splitter, and the other two are Post Splitter, one for Drug one for Claim. The Pre-Split DQI has had the record layout updated for the Phase 5 changes, the other programs may need modification to the Phase 5 records layout. The Pre-split DQI is an excellent report to get a sense of the data on the Data Investigation file. This should be one of the first reports run when preparing to do Data Investigation on the F35-File. The Pre-Split DQI report produces distributions on Plan Code, Claim Type, County Codes, Aid Codes, Sex Codes, Medicare indicator, Invalid Check Dates, Totals of selected financial fields, Invalid Service Dates, and a few other distribution counts.

The DQI programs are documented in the DQI Workbook (see in Appendix 1.13—Open Data Investigation Items). Should any Data Investigation need to take place that the DQI programs already are coded to report, it *may* be easier to update the programs than to write new SAS queries. This is an option available to the investigator.

1.9 Exit Criteria

The Data Investigation Process is complete when the *Questions* posed in the Data Investigation Database have been answered and fully documented.

1.10 Forms and Subject Examples

None

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1.11 Reference Material

The following is a list of the reference material that can be very helpful when engaged in a Data Investigation activity:

- ❖ Functional Specs and DM Workbook
- ❖ DM Guide
- ❖ System Test Plans
- ❖ MIS/DSS Data Dictionary
- ❖ Medi-Cal Input File DEDs
 - F35-File
 - Encounter File
 - MEDs File
 - Managed Care Provider file
- ❖ Medi-Cal Provider Billing Manuals
- ❖ MEDSTAT Data Investigation Guidelines
- ❖ Production Reports:
 - FOLOGs
 - Unexpected Values
 - Production DQI
 - Production Edit Reports
- ❖ Investigative Requests (Irs)

1.12 History

Established/Revision Date	Established/Revised By	Change Description
4/20/2000	Julie Dittman	Established Process
6/18/2001	Todd Jackman	Corrected references to sections within the process and included the appendix material—DQI Workbook.
9/12/01	Carrie Swanson	Corrected parenthesis in Data Investigation of Standard Fields section.

1.13 Appendix – Open Data Investigation Items

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: Updating EGAD	
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1 Updating EGAD

1.1 Overview

The Element Generation and Definition (EGAD) Table and EGAD Detail Table are DataScan support tables and serve as a data dictionary for the Case, Claims, Episode, and Population table as well as for non-core tables. There are two physical tables that carry the data dictionary. There is one maintenance panel for the two tables because they are one logical table.

The EGAD tables list and describe the fields in each table and control how the fields appear in the DataScan System. The DataScan interactive software allows users to access not only DataScan core data tables, but custom tables as well. All fields on non-core tables must be included in the EGAD tables.

The EGAD Tables should be reviewed and necessary changes made when:

- The field formats change for custom fields
- Users request changes to custom fields
- New custom fields are added to or removed from the database core or custom tables
- A DataScan version release impacts custom fields

Every time EGAD is modified, the new table is downloaded to the PC at logon.

1.2 Purpose

The purpose of this document is to create a documentation standard for the process of adding, changing, or deleting items from EGAD.

1.3 Scope

This document applies to the addition, modification, or deletion of items from EGAD by a Data Manager.

1.4 Responsibility and Enforcement

The Data Management team is responsible for adding, changing, or deleting items from EGAD.

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1.5 Policy Statement

The objective of this procedure is to ensure all additions/changes/deletions are correctly implemented in the EGAD Table.

1.6 General Considerations

Every time the EGAD Table is modified, the new table is automatically downloaded to the PC when a user runs DataScan. With this in mind, every effort should be made to consolidate additions/changes/deletions to the EGAD Table, so the table will not be downloaded as frequently to the users PC.

1.7 Skill Requirements

The skills required to perform the EGAD Maintenance Process are:

- Basic knowledge of TSO
- Familiar with the IR Log
- Familiar with the DM Workbook
- Familiarity with how fields are displayed in DataScan is helpful

1.8 Entry Criteria

When an addition/change/deletion must be made to the EGAD Table, the Data Manager initiating the change must open an Investigative Request (IR). The IR specifies the environment to change, what the change is, the effective date of the change, and any special instructions. The IR will go to Change Control for approval and then a task will be assigned to the person responsible for making changes to EGAD.

1.9 Procedure Steps

The major activities of the process are described in detail.

1.9.1 Navigating to the EGAD Maintenance Screen

- From the ISPF Primary Option Menu, type on the command line, 'h.db'.
- On the HWDC Data Base Products Main Menu, enter option '1 – DB2I/SPUFI' and either 'HMTD' or 'HMPD' for DB2 ID. Use 'HMTD' for Test environment and 'HMPD' for Production
- On the DB2I Primary Option Menu, type on the command line, 'tso mdstmenu'.
- On the MEDSTAT System Table Maintenance Menu, make sure the 'Current System Environment' is correct. If it needs to be changed, enter a 'D' for 'System Default Maintenance'. Change the environment and continue.
- To enter the EGAD Table Maintenance screen, enter an '8'.

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1.9.1.1 Fields on the EGAD Table Maintenance Screen

PC Field Name (PC_FLD_NAME)

- Use Uppercase Only
- Use three to eight characters
- Appears in the far right-hand side of the field listing box
- Core PC field names cannot be changed. The system will not allow a key field to be changed

PC Alias (PC_FLD_NAME_ALIAS)

- Indicates the PC field name used to identify valid values in COL_LOOKUP
- Allows COL_LOOKUP valid values to apply to more than one field. For example, the core field DRG may have the same values as a custom DRG field. The two DRG fields will have the same PC Alias to refer to one set of COL_LOOKUP values
- Most fields will have the same value in the PC Field Name and PC Alias

PC Field Short Description (PC_FLD_SHRT_DESC)

- Use uppercase and lowercase
- Use one to twelve characters
- Appears in column and row names for special reports

Print Format (PRINT_FORMAT)

- Indicates the print format of a field
- A = Printed as is without commas or decimals (e.g., EMPID)
- B = Commas and decimals added (e.g., NETPAY)

PC Field Long Description (PC_FLD_LONG_DESC)

- Use uppercase and lowercase
- Use one to thirty characters

Population Table Indicator (POP_TBL_IND)

- This column identifies population-supported fields
- A “Y” in this column means that a subset on this field on one of the core tables will also subset the appropriate populations

Edit Report (EDIT_MISSING_IND)

- Indicates if the Edit Report will show the percent “missing” for this field
- Y = Yes; N = No
- Only used for core columns on the Claims tables
- Custom fields should have an “N” in this column

Hidden (HIDDEN_FLD_IND)

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- Indicates if a field should be hidden from user access
- Y = Yes; N = No, A = Always
- Fields with a “Y” are accessible to users only if the USER_TYPE in the User Profiles table is set to “1”. The USER_TYPE field grant or denies access to hidden fields

Column Min (COL_MIN_VALUE)

- Indicates whether or not the value entered for a field should be checked against a range or valid values
- Details the minimum value for the field if it should be range-checked
- A zero indicates that the field should not be range-checked
- Financial fields which can have a negative value should show “-9999999”
- Other numeric fields which can have a negative value must show the lowest negative value
- All character fields should be zero

Column Max (COL_MAX_VALUE)

- Indicates whether or not the value entered for a field should be checked against a range of valid values
- Details the maximum value for the field if it should be range-checked
- A zero indicates that the field should not be range-checked
- Financial fields which can have a negative value should show “9999999”
- Other numeric fields which can have a negative value must show the largest positive value
- All character fields should be zero

Managed Care Break Indicator (MC_BREAK_IND)

- Meaningful only for Managed Care
- Indicates which categorical fields can be used as high-level row breaks in the Managed Care reports
- Examples are PRODUCT and ACCOUNT
- Default high-level break fields are NETWORK, PCPID, PCPTYPE, and PRODUCT
- A field must be population supported to be a high-level break
- Defined fields cannot be used as row breaks

Clinical Grouping Indicator (NRM_CLIN_GRP_IND)

- Core fields set to “Y” are DRG, MDC, PROCGRP, and TG
- Indicates which fields are clinical categories that can be used to build norms

Related Flags

- Indicates how fields are used by the DataScan system
- Y = Yes; N = No
- Flags are:

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- Pop Related – Denotes a field which affects rates calculations; if “Y” and not in the POPS table, a warning message appears when the field is included in subset rules
- Clinical Related – Denotes a field for which clinical reports are run; if “Y” and is included in subset rules, clinical reports will use DB_DEF assignment rates rather than calculate assignment rate based on current subset. Not used for custom fields
- Employee Related – Denotes a field which contains information about the employee; this is an information only field at present
- Financial Related – Denotes a field which contains dollars; if “Y”, can be used as the cost basis in Trend, IP Clinical and OP Clinical reports; do not use for custom fields which contain dollars
- Location Related – Denotes a field which contains geographic information; this is an information only field at present
- Patient Related – Denotes a field which contains information about the patient; this is an information only field at present
- Provider Related – Denotes a field which contains information about the provider; this is an information only field at present
- Time Related – Denotes a field which is date-oriented; this is an information only field at present
- Other Related – Denotes a field which is not related as mentioned above; this is an information only field at present

Table ID (TABLE_ID)

- Table IDs are:
- Indicates which table the field resides upon
- If a field is on any one of the IP, PI, OP, or PO tables, it must be on all four tables
 - CA = IP Case table
 - CP = Capitation table
 - C2 = Case2 table
 - DR = Drug table
 - DN = Dental table
 - EG = Eligibility table
 - EP = Episode table
 - IP = IP Service Detail table
 - MC = Managed Care table
 - OP = OP Service Detail table
 - PI = IP Service Detail w/ Pd table
 - PO = OP Service Detail w/ Pd table
 - OD = OP Service Detail w/o Dental table
 - PP = Populations table

DB2 Column Name (DB2_COL_NAME)

- Use uppercase only

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- Use less than 18 characters, preferably no more than 10
- Use an underscore (_) to divide words
- Does not appear in the DataScan interface
- Cannot be changed without alterations to Convert Programs

Field Type (FIELD_TYPE)

- Use uppercase only and spell out completely
- Valid values are:
 - CHARACTER
 - SMALLINT
 - DATE
 - TIME
 - DECIMAL
 - INTEGER
 - TIMESTAMP

Field Length (FIELD_LENGTH)

- If field type is CHARACTER, enter the number of characters
- If field type is DATE, enter 4
- If field type is INTEGER, enter 4
- If field type is SMALLINT, enter 2
- If field type is TIME, enter 8
- If field type is TIMESTAMP, enter 10
- If field type is DECIMAL, enter the number of bytes (calculated by dividing the number by 2 and adding 1. Disregard any halves (.5). Example: Display length is 7. Divide by 2 = 3.5. Add 1 = 4.5. Take off the .5. The storage length is 4. The storage length for a decimal field cannot be greater than 6
- Financial fields that do not carry pennies should always be DECIMAL 4

Core (CORE_COL_IND)

- Indicates if the field is a DataScan core field
- Y = Yes; N = No; Spaces = No

Stats Type (STATS_TYPE)

- Indicates what variation of statistics are allowed in the statistics module. Statistics should be limited to only those that are appropriate for the values stored in the field
- The valid values are:
 - A = All statistics available (decimal fields such as financial fields, DAYS or AGE)
 - B = Statistics involving sum of squares are excluded (this is for numeric fields that are categorical in nature)
 - C = Only number of observations, number of missing, and min/max are available (this is for character fields)

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Missing Rule (MISSING_RULE)

- 0 = This field cannot be missing
- 1 = Null is the missing value. Cannot use this rule for custom fields
- 2 = 0 (zero) is the missing value. Can only be used for INTEGER, SMALLINT, or DECIMAL fields
- 3 = Space (or blank) is the missing value. Can only be used for CHARACTER fields
- 4 = Field is one of the following:
 - Date: 0001-01-01 (ccyy-mm-dd) is the missing value
 - Time: 00:00 is the missing value
 - Timestamp: 0001-01-01-00.00.00.000000 is the missing value
- 7 = Field is a Cohort Type (COHORT). 13 is the missing value
- 8 = Field is a Procedure Group Code (PROCGRP). 499 is the missing value
- 9 = 9 is the missing value. Can only be used for INTEGER, SMALLINT, or DECIMAL fields
- 10 = -1 is the missing value. Can only be used for INTEGER, SMALLINT, or DECIMAL fields

Join Availability (JOIN_AVAILABILITY)

- Allows columns that physically exist on one linked table to be viewed on a Record List run on a table at a lower level in the link hierarchy. For example, the IP Case table is linked to the IP Service Detail table, and the field DAYS is present only on the IP Case table. Because DAYS is defined in EGAD with a “Y” in the Join Availability column, DAYS is accessible when the user performs a Record Listing on the IP Service Detail table
- Valid values are “Y” and blank. A “Y” in this column means that the field value is available during a Record Listing on lower link hierarchy levels. The option has no affect on columns in tables that are not part of a link hierarchy or on tables that are in the lowest position in a link hierarchy.

Index Sequence (INDEX_SEQ)

- Informational field only
- Notation that the field exists on an index
- The valid values are:
 - P = Primary Index (clustering index)
 - S = Secondary Index
- The number preceding the letter indicates that field is on the index
- The information entered into this field will show up in the field selection list box in Subsetting. If the list box is stretched, users can see the index sequence on the right-hand side of the list box. By looking for this information, the users can see which of the available fields are indexed

1.9.1.2 Modifying a Row

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- For 'Select Action', enter an 'F' to 'FIND a row'.
- Type in the PC Field Name. Press enter and the information for that field will appear.
- Go back to 'Select Action', enter an 'M', make the necessary change, and press enter.
- A message will display 'Modify Successful'.
- When modifying EGAD Detail at the bottom of the screen, enter an 'M' under 'Action', make the necessary change, and press enter.
- A message will display 'Modify Successful'.

1.9.1.3 Deleting a Row

- For 'Select Action', enter an 'F' to 'FIND a row'.
- Type in the PC Field Name. Press enter and the information for that field will appear.
- Go back to 'Select Action' and enter a 'D' to 'Delete row'. Press enter.
- A message will appear asking for verification to delete. Press enter.
- A message will display 'Delete Successful'.

1.9.1.4 Adding a Row

- For 'Select Action', enter an 'A' to 'ADD row'.
- Type in the information, referencing the above information. Press enter.
- A message will display 'Add Successful'.
- When entering EGAD Detail at the bottom of the screen, enter an 'A' under 'Action' and enter the information for that row. Press enter.
- A message will display "Add Successful".

1.10 Exit Criteria

After additions/changes/deletions are made to the EGAD Table, the person making the changes must mark the task as complete in the IR Log. The person initiating the addition/change/deletion must test it and document the results in the IR.

1.11 Forms and Instructions

An IR must be created by the person initiating the addition/change/deletion to EGAD. The IR is then routed through Change Control for approval.

1.12 Subject Examples

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1.13 Reference Material

The Data Management Guide

1.14 Policy History

Established/Revision Date	Established/Revised By	Change Description
5/8/00	Tina Poyner	Policy/Process Established
3/8/01	Carrie Swanson	Removed references to the 'Pink Sheet' which is no longer used.

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1. ESP Build/Update Setup

1.1 Overview

This document describes how the batch flow executes for DataScan Build/Update processes.

1.2 Purpose

The ESP Build/Update Setup Process assists the database administrator in performing the necessary steps to build and update the MIS/DSS. This document will also serve to educate those new to the production control team or any other interested parties.

1.3 Scope

This document will be used by any project team member responsible for or involved in the building or updating the production Mainframe or NT Server MIS/DSS databases.

1.4 Responsibility and Enforcement

The Operations team is responsible for carrying out this procedure.

1.5 General Considerations

All MEDSTAT production batch process will execute using Execution Scheduling Processor (ESP) software.

Due to the changing nature of the project requirements from phase to phase, the contents of this document are highly volatile. It is always best to refer to the online version of this document to ensure you view the latest information.

1.6 Skill Requirements

Individuals involved in the execution of this process must be knowledgeable in DataScan, DB2, TSO and ESP.

1.7 Entry Criteria

This procedure is initiated when MEDSTAT and DHS have approved the Pre-Release package and the build or update is scheduled to begin.

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1.8 Procedure Steps

This procedure describes the steps required for executing Build/Update jobs using ESP. The following table contains the steps for this procedure.

Step Number	Step Description
1	Update ESP Application Proc(s) with the current phase/DB update name. The ESP Procs are located on the Mainframe with the PDS name of HM.PMED.ESP.DS.PROC. The members in this PDS are identified by the naming convention of B5 and U5. The Build Procs will start with B5 and the Update Procs will start with U5. Each application will have its own Proc. For example CLMS, ELIG, PROV, CAP, HRO, and MCPF.
2	Update ESP symbolic member with the current phase/DB update name and approved input dataset names. The ESP Symbolic PDS is located on the Mainframe as HM.PMED.ESP.DS.SYMBOLIC. The following members should be updated. <ul style="list-style-type: none"> • Build - B5INPUT for input datasets and B5JCL for phase/DB update information. • Update - U5INPUT for input datasets and U5JCL for phase/DB update information.
3	Logon to ESP and submit event DSCAN.BLD_SUB for Build jobs and DSCAN.UPD_SUB for Update jobs. This event will submit all DataScan jobs by application name. Refer to Attachment 1 of this document for ESP application names.

The following pages contain diagrams of the DataScan Build/Update process and ESP application procedure names.

1.9 Exit Criteria

This process can be exited once the DataScan Build/Update jobs have completed and the Data Management Team has successfully completed validation tests. The Database will then be released for end-user access.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

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1.10 Forms and Subject Examples

See attachments

1.11 Reference Material

1.12 Policy History

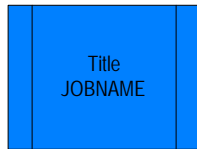
Established/Revision Date	Established/Revised By	Change Description
5/10/00	Natalie Wyatt	Policy/Process Established

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Attachment 1. DataScan Build/Update Process Flow

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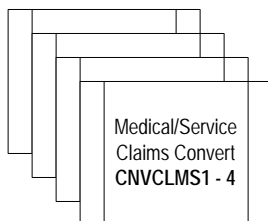
DataScan Batch Flow - Legend



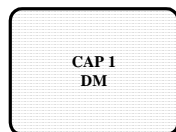
This box represents a DataScan custom job. It contains the job title and job name. The job name must appear in uppercase and with a bold font. Each job is a member of an ESP application. Each ESP application has a unique color.



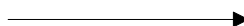
This box represents a DataScan core job. It contains the job title and job name. The job name must appear in uppercase and with a bold font. Each job is a member of an ESP application. Each ESP application has a unique color.



This diagram represents multiple instances of the same job. They are run in parallel to speed up processing. The logic executed is the same in each job instance. The only difference is the input and output data sources. They can be run in parallel depending on the computer resources available. Multiple instances of core jobs are noted in a similar fashion but using the core box object with multiple instances.



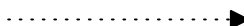
This object represents a validation points within the process that is performed by the responsible Data Manager



This line connector indicates the next job in the process for execution. Concurrency is determined by available computer resources.



This line connector indicates the next job in the process for execution that is on the critical path. Jobs on the critical path are scheduled first when considering concurrent jobs. Critical path jobs will execute the longest.



This line connector indicates a dependency on a job completing in a different application. For example, The Drug Claims Convert job cannot start until the Provider Background load job is completed.



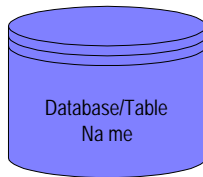
This line connector indicates when a Data Management validation step is performed after successful completion of the job. It connects to the Data Manager validation box noted above. This is separate from the ongoing validation steps performed by the Operation Team during the build/update process

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
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DataScan Batch Flow - Legend (cont...)



This notation is affixed to the bottom of a custom or core job box to indicate the job is restartable.



This object indicates a database or table. The title of the database or table name is located inside the object.

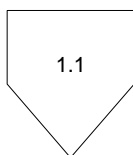


Diskette Input

The diskette object indicates data for this process is contained on a PC diskette.

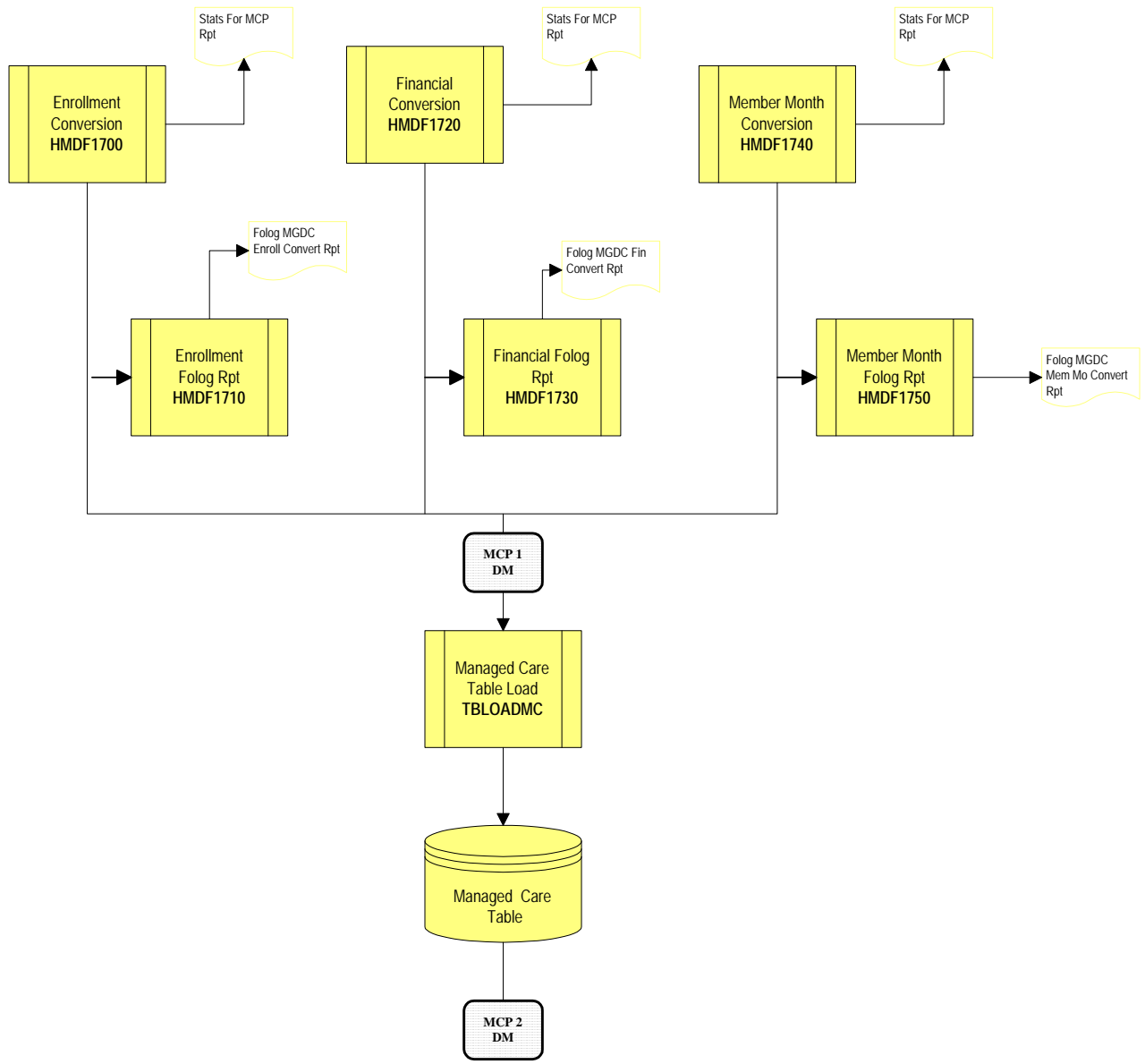


The report object indicates that one or more reports will be generated by the job. This object indicates two reports are created. The DDNAME is contained in each report object diagram. The DDNAME is the portion of the JCL that indicates the file attributes including file name. The filename is where the report is written by the program.

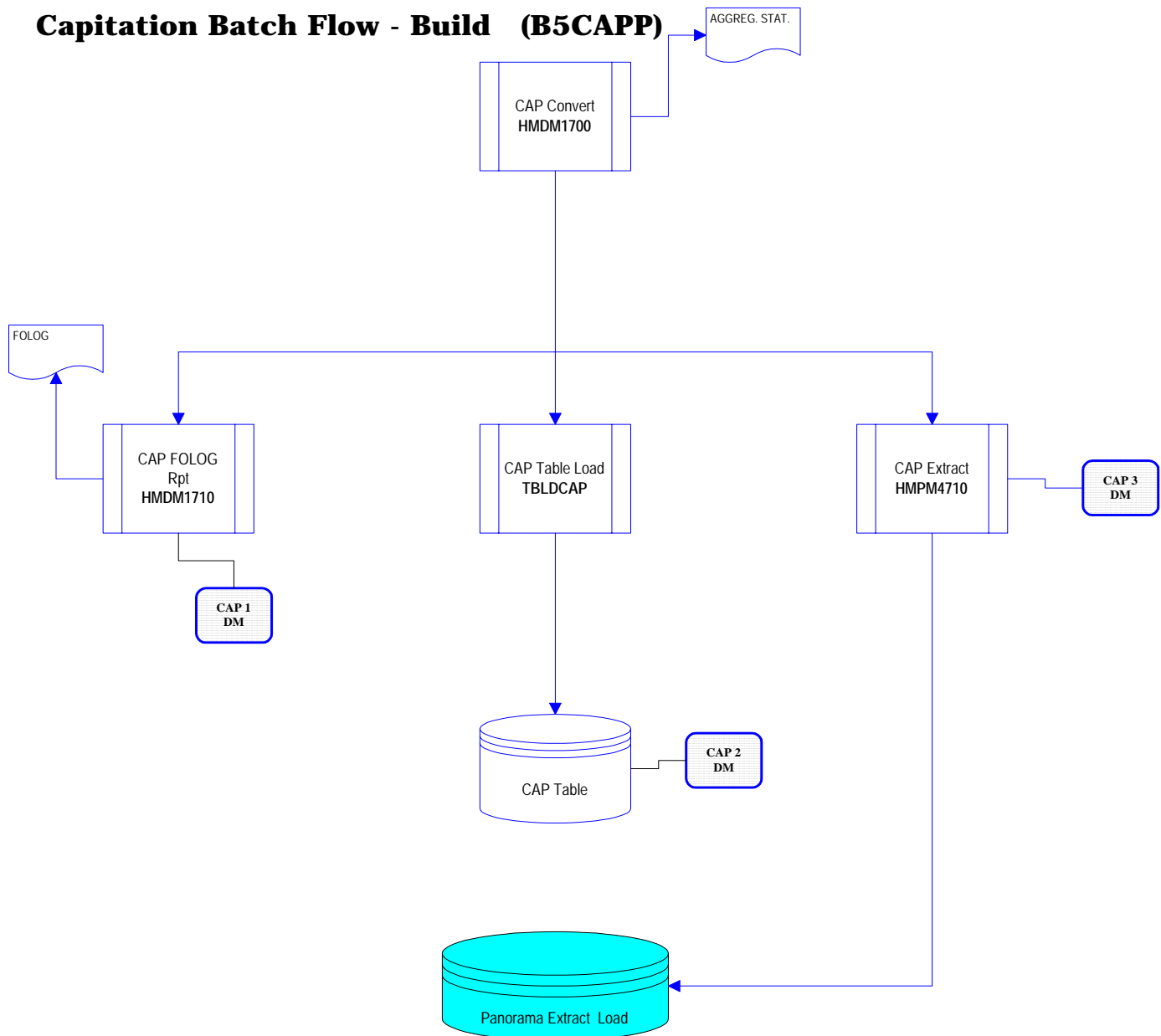


This is the off-page connector object. This object is used to indicate that part or all of the job flow continues on another page. Each connector has a unique number identifying a pair of related connectors.

MCPF Batch Flow - Build (B5MCPF)

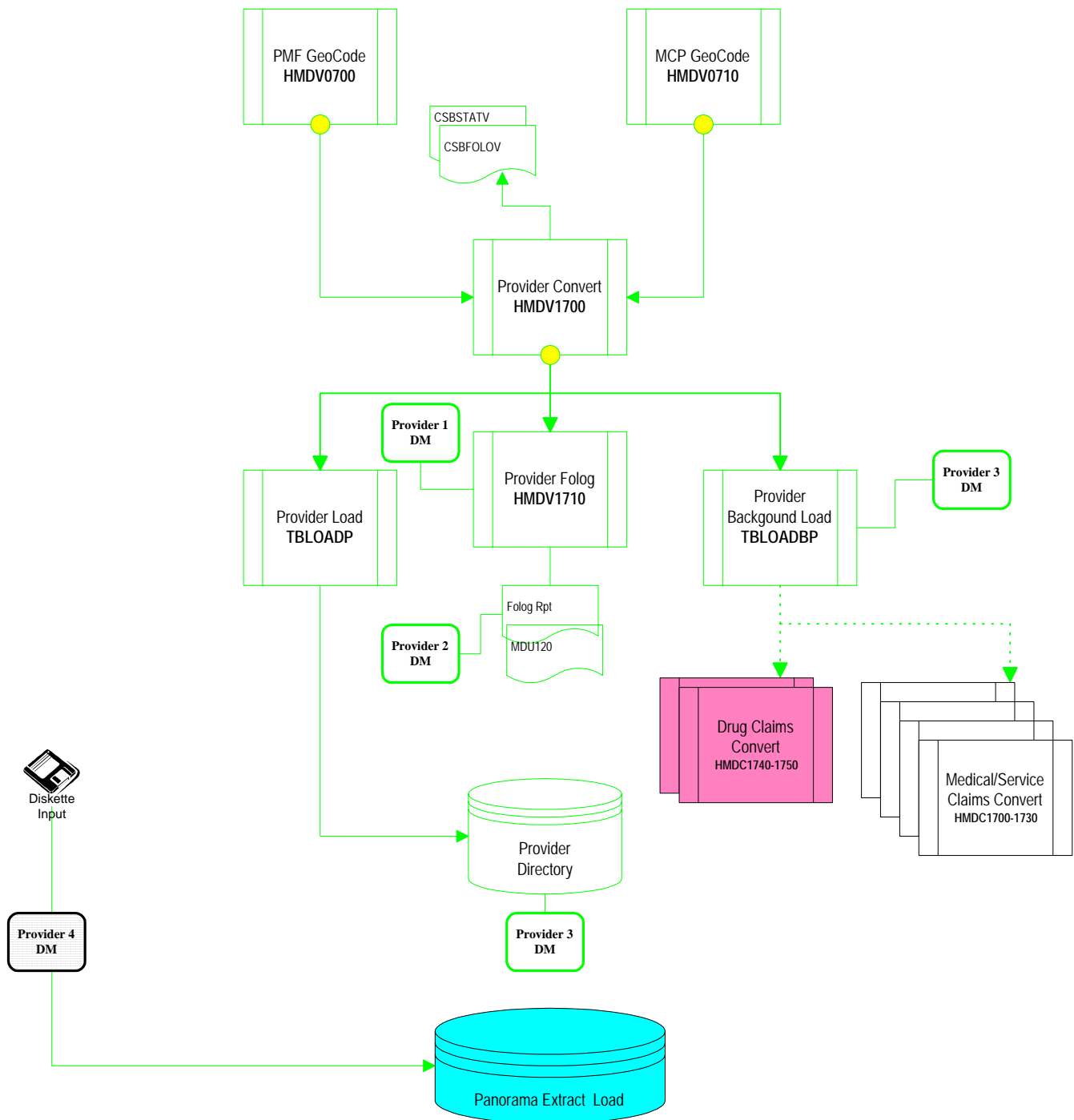


Capitation Batch Flow - Build (B5CAPP)

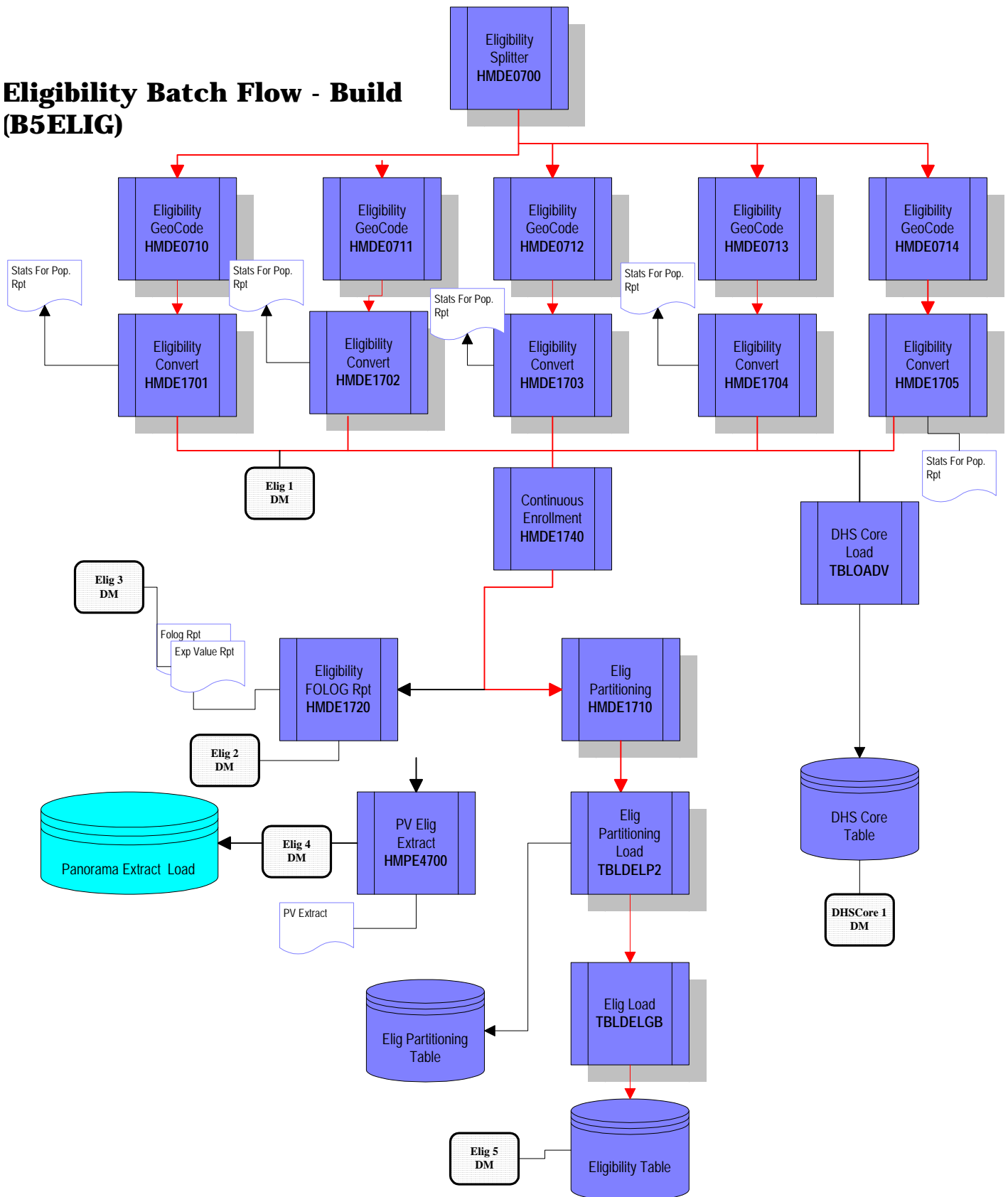


MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
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Provider Batch Flow - Build (B5PROV)

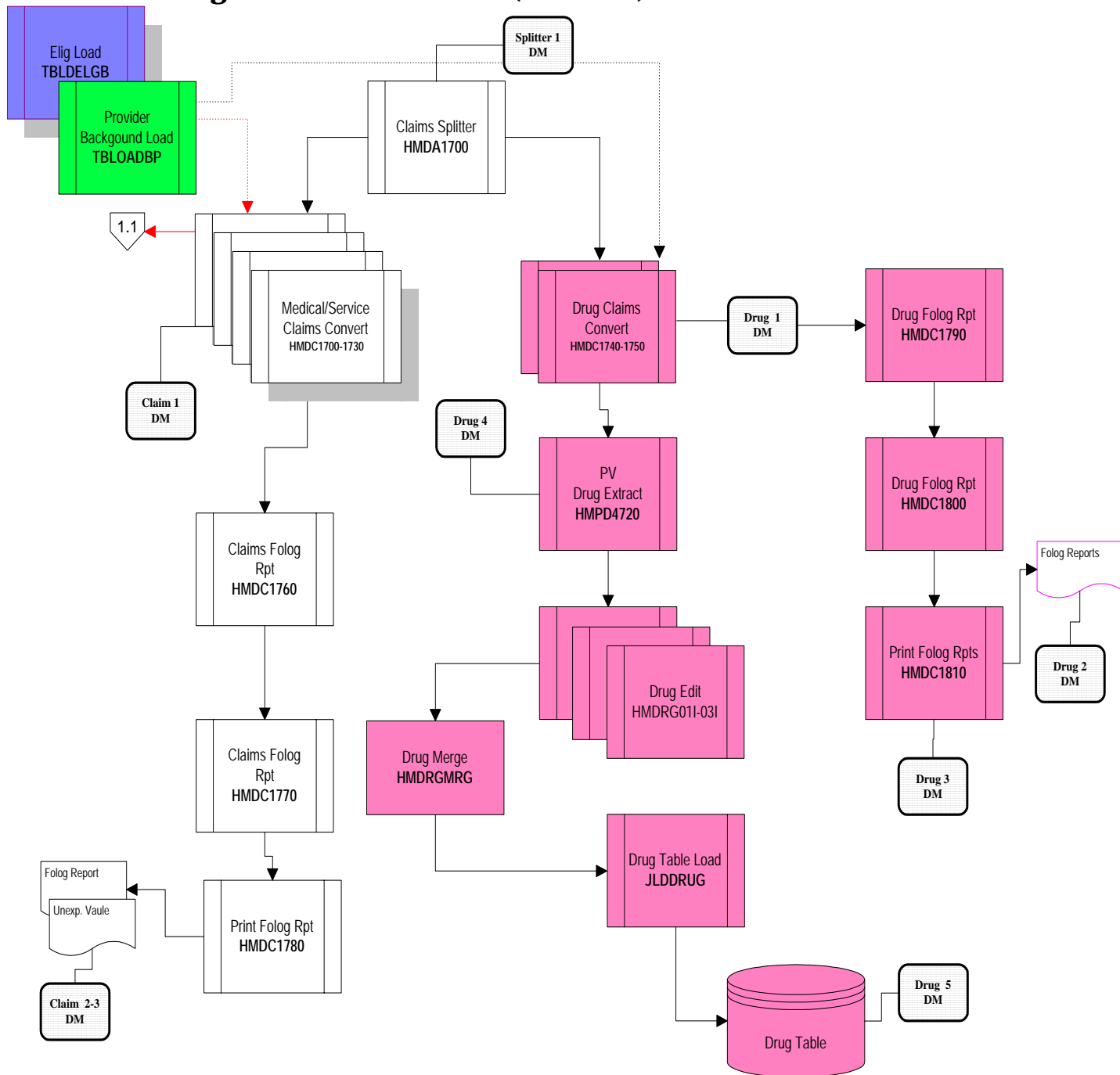


Eligibility Batch Flow - Build (B5ELIG)



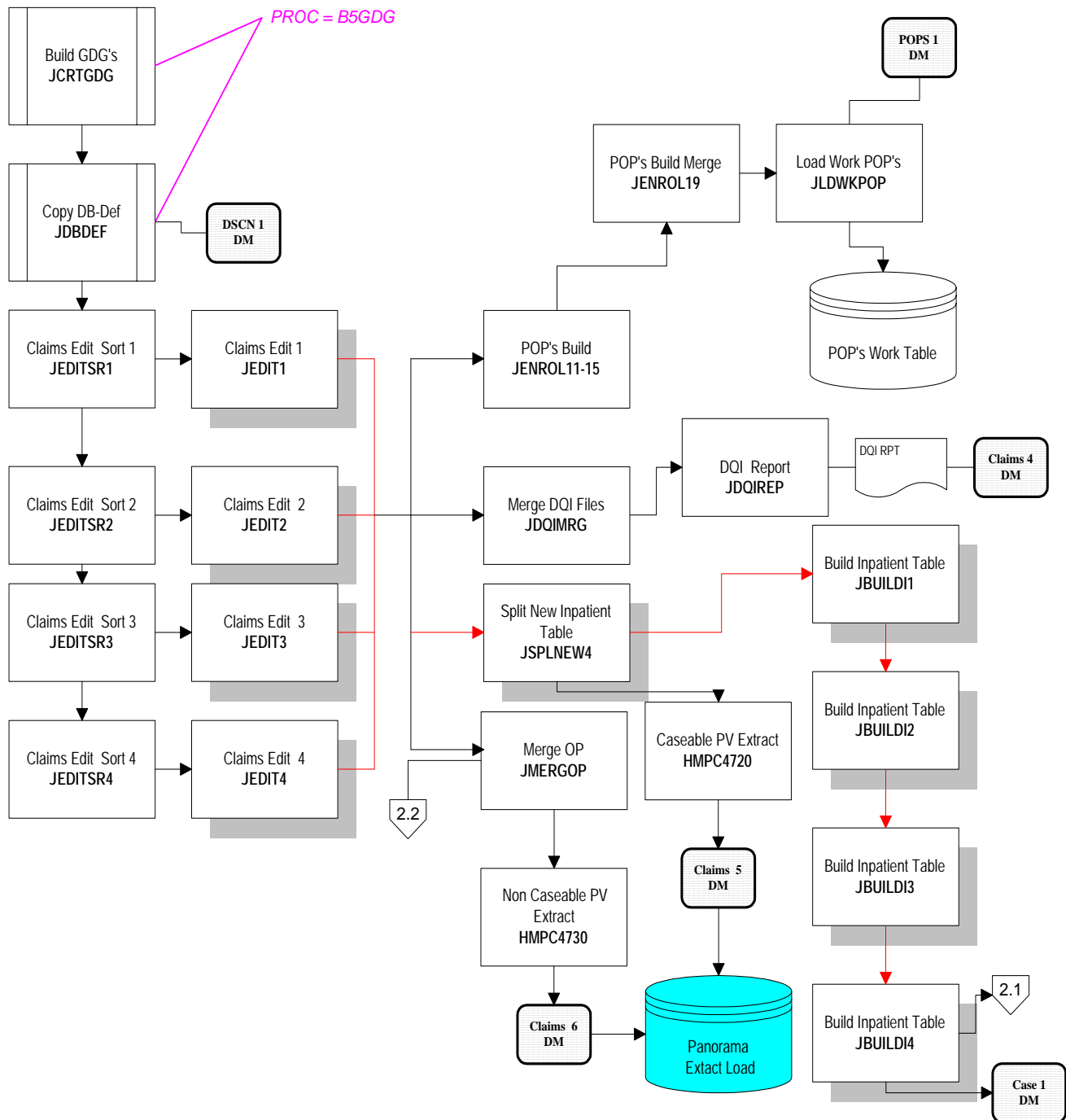
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 12

Claims/Drug Batch Flow - Build (B5CLMS)



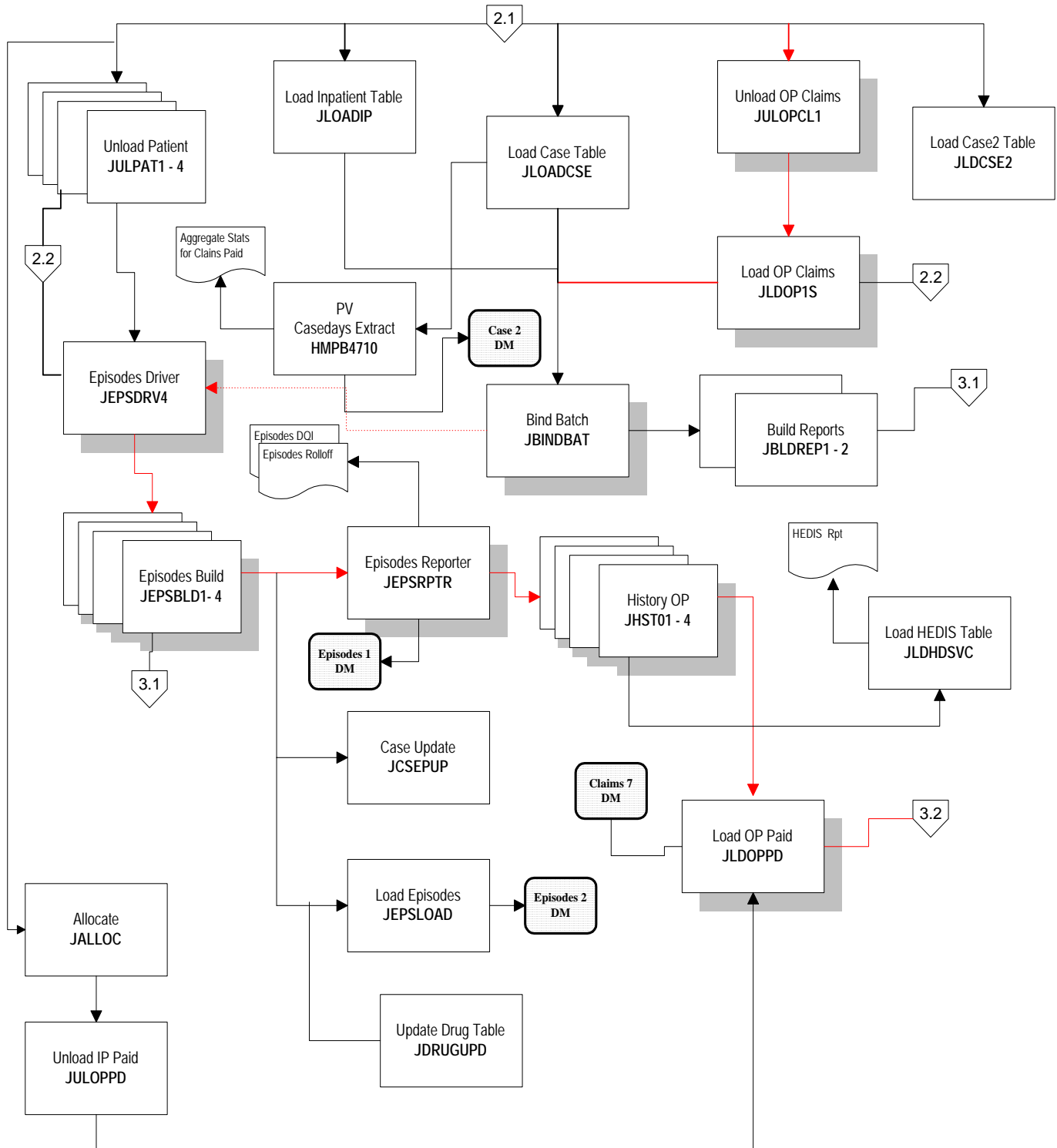
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 13

Claims/Drug Batch Flow - Build (B5CLMS)



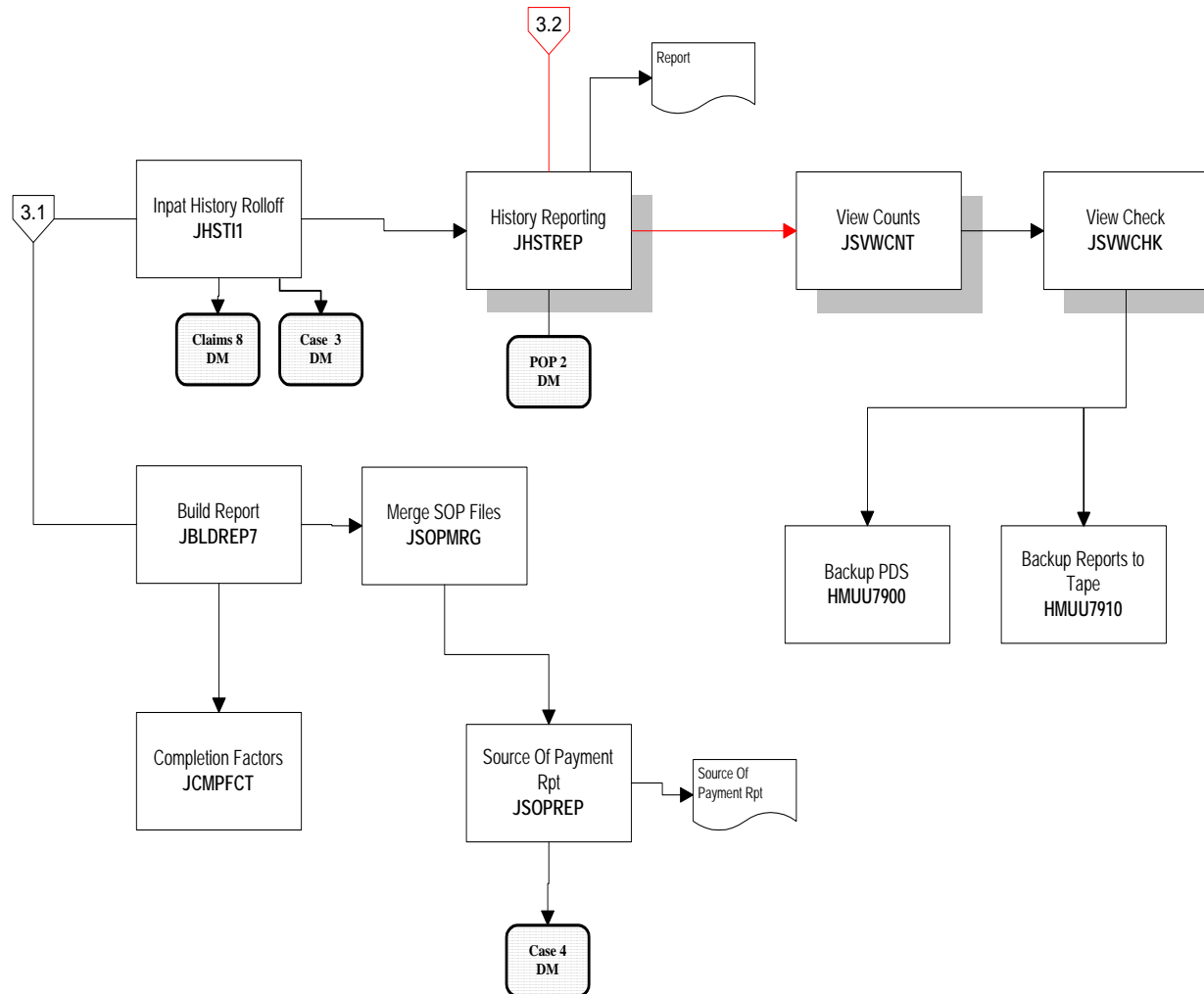
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 14

Claims/Drug Batch Flow - Build (B5CLMS)



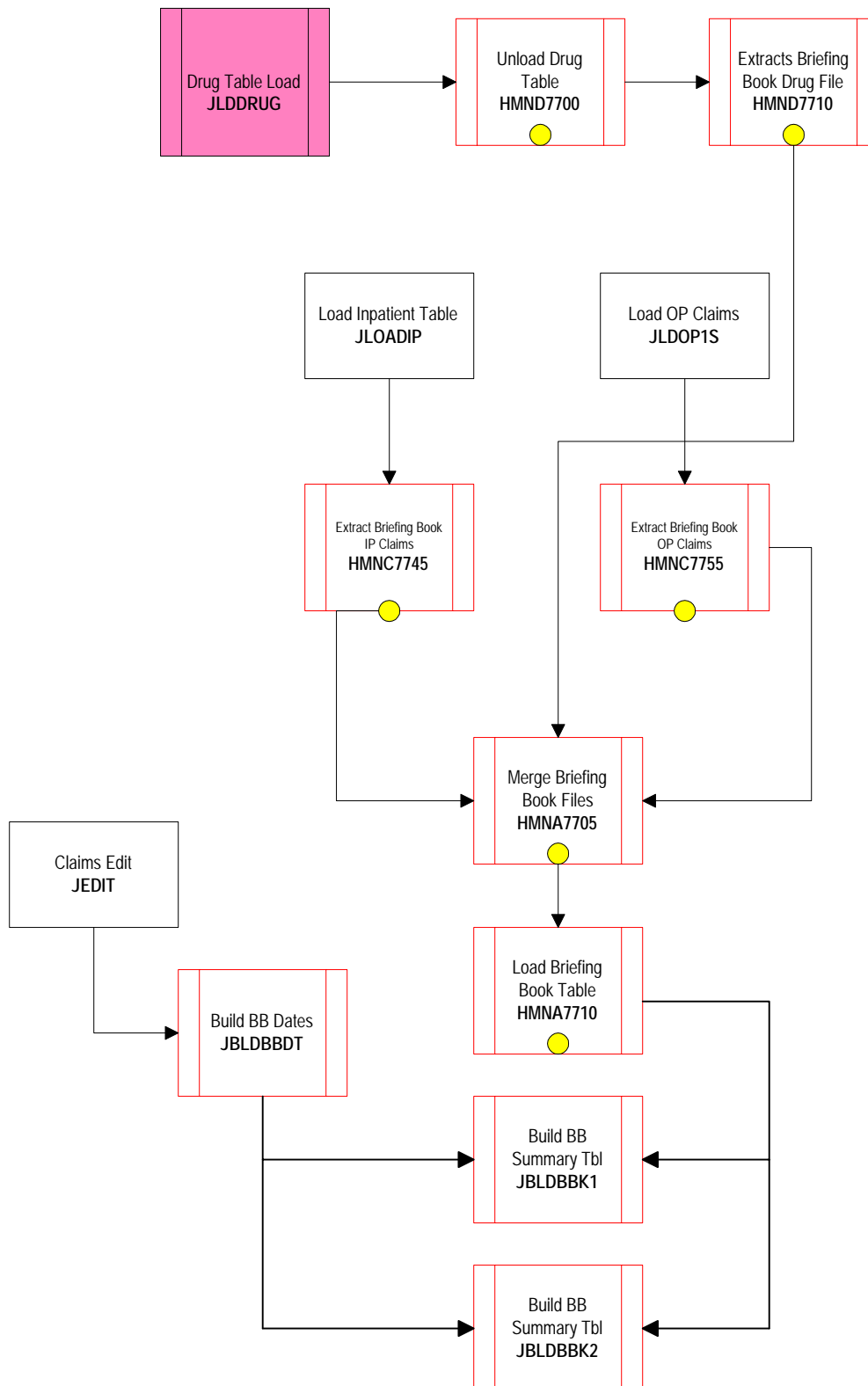
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
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Claims/Drug Batch Flow - Build (B5CLMS)



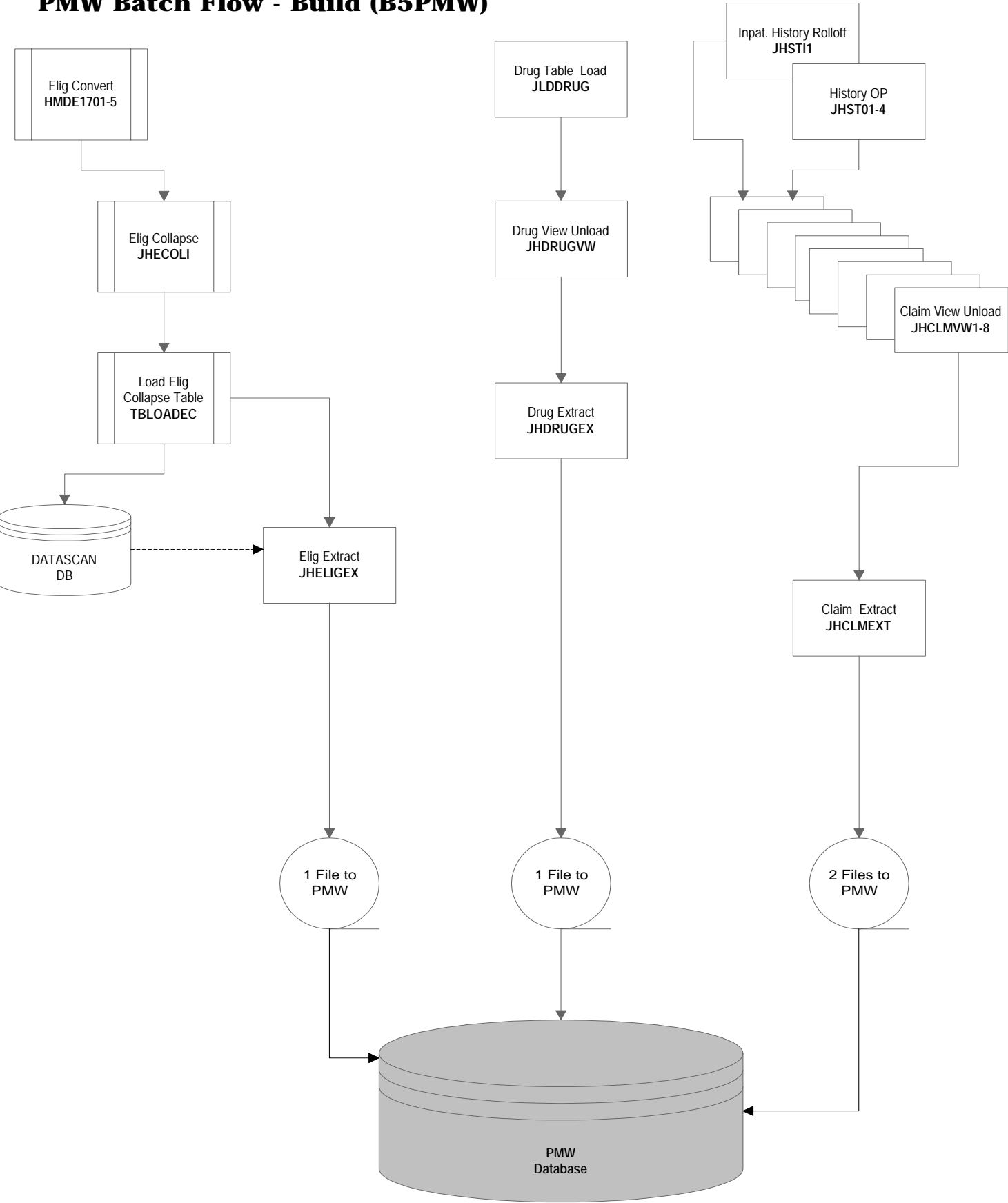
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 16

Briefing Book Batch Flow - Build (B5BRBK)



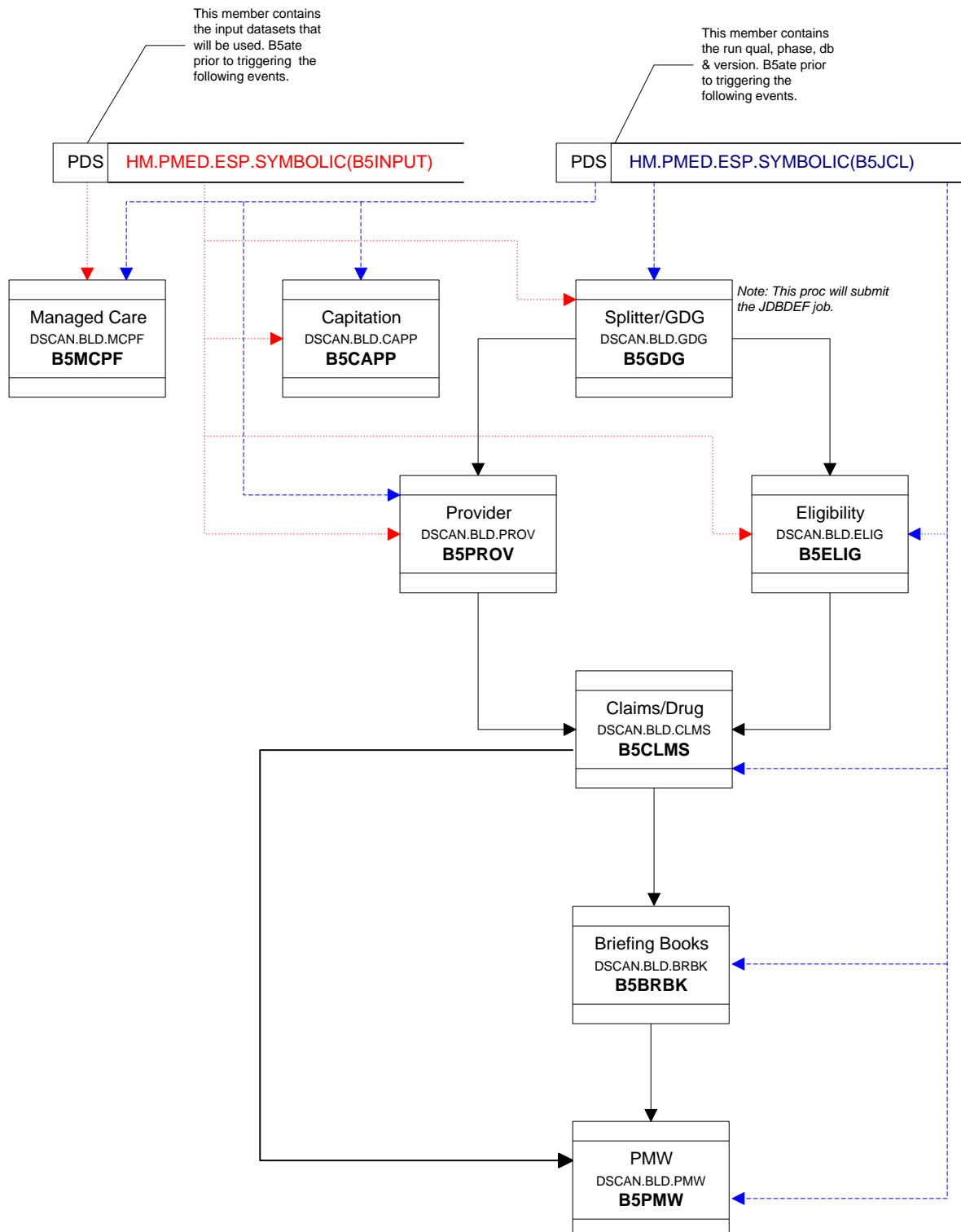
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 17

PMW Batch Flow - Build (B5PMW)



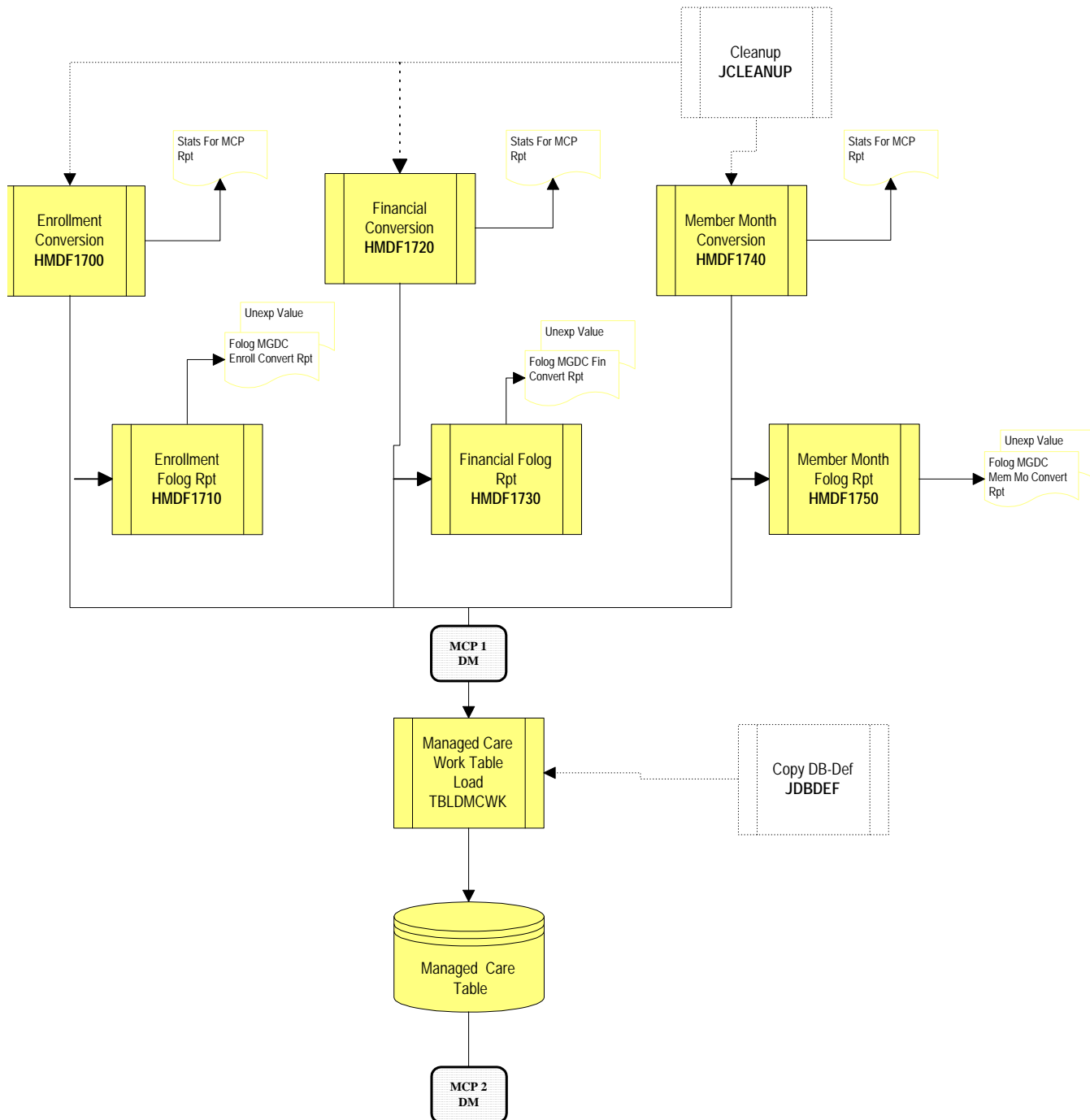
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
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ESP PROCEDURE FLOW - BUILD



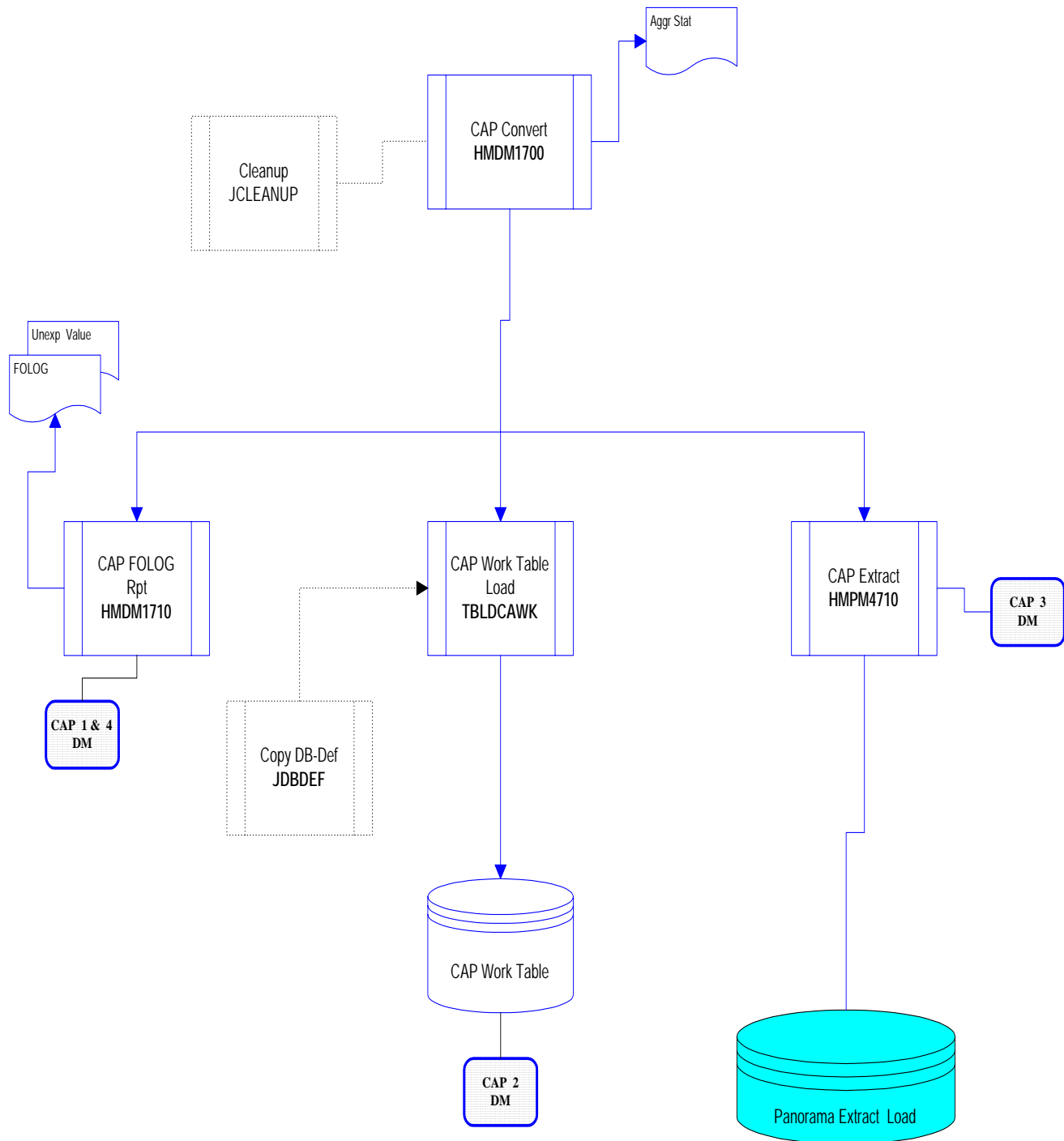
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 19

ICPF Batch Flow - Update (U5MCPF)



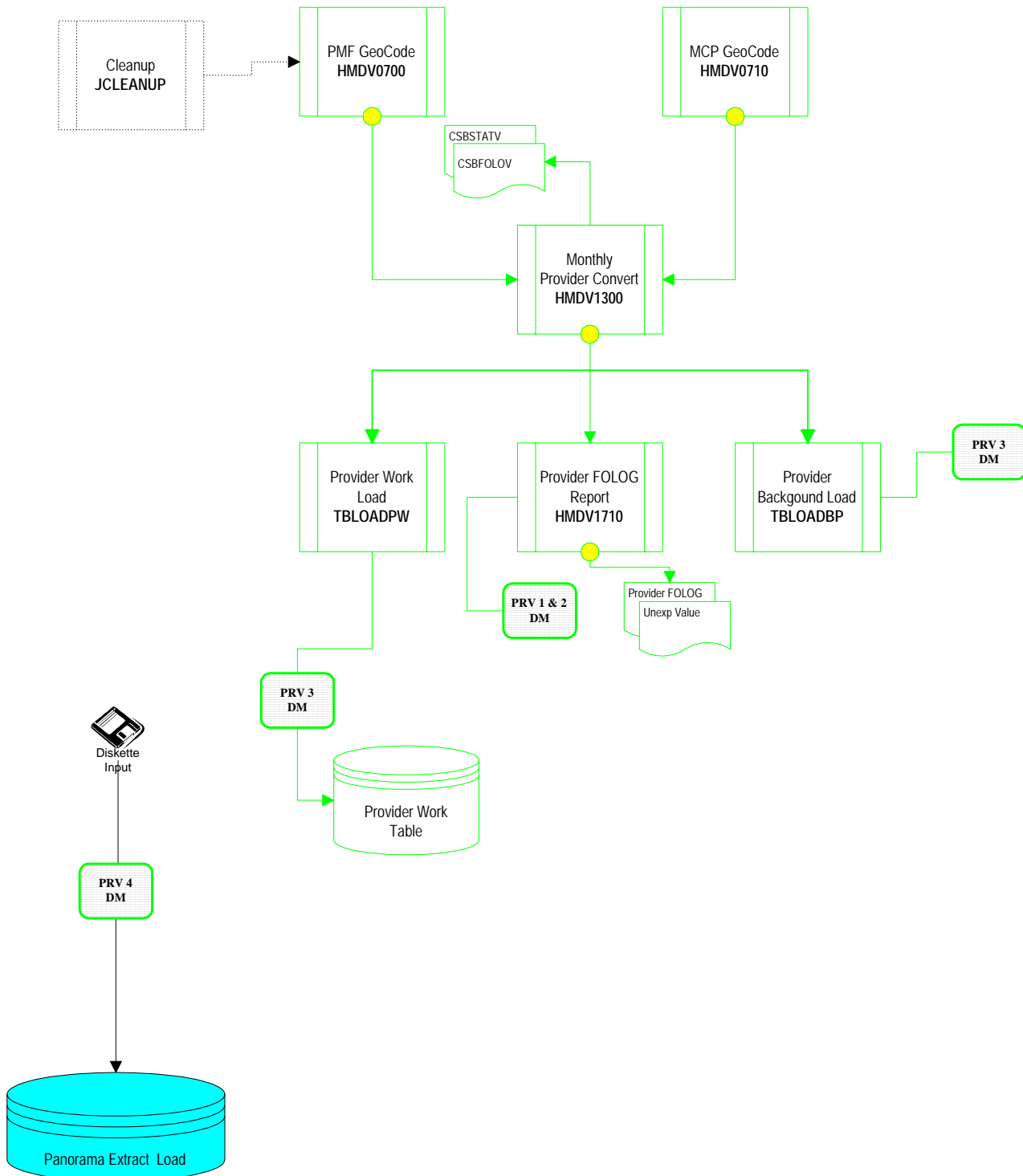
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 20

Capitation Batch Flow - Update (U5CAPP)



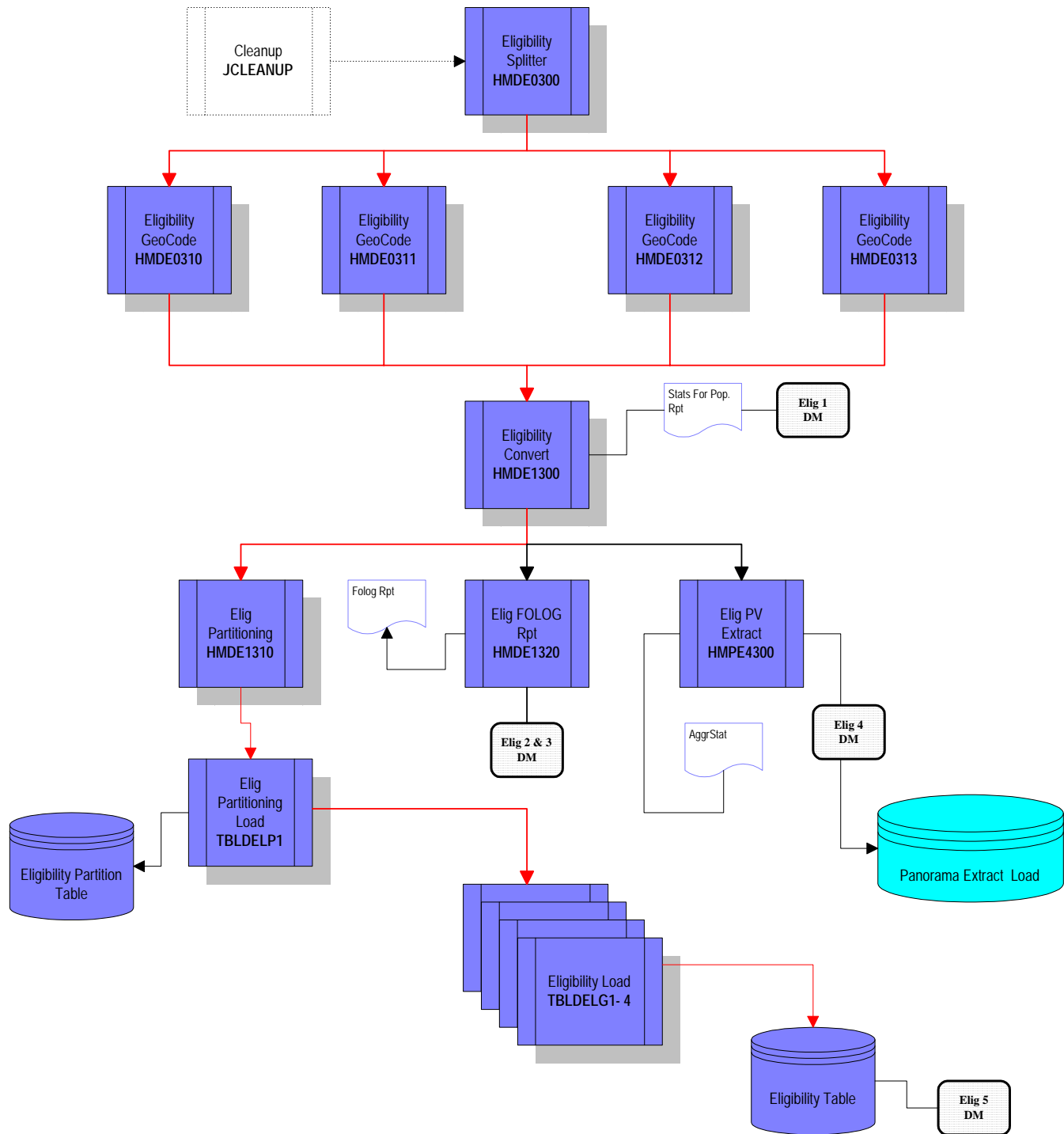
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 21

Provider Batch Flow - Update (U5PROV)



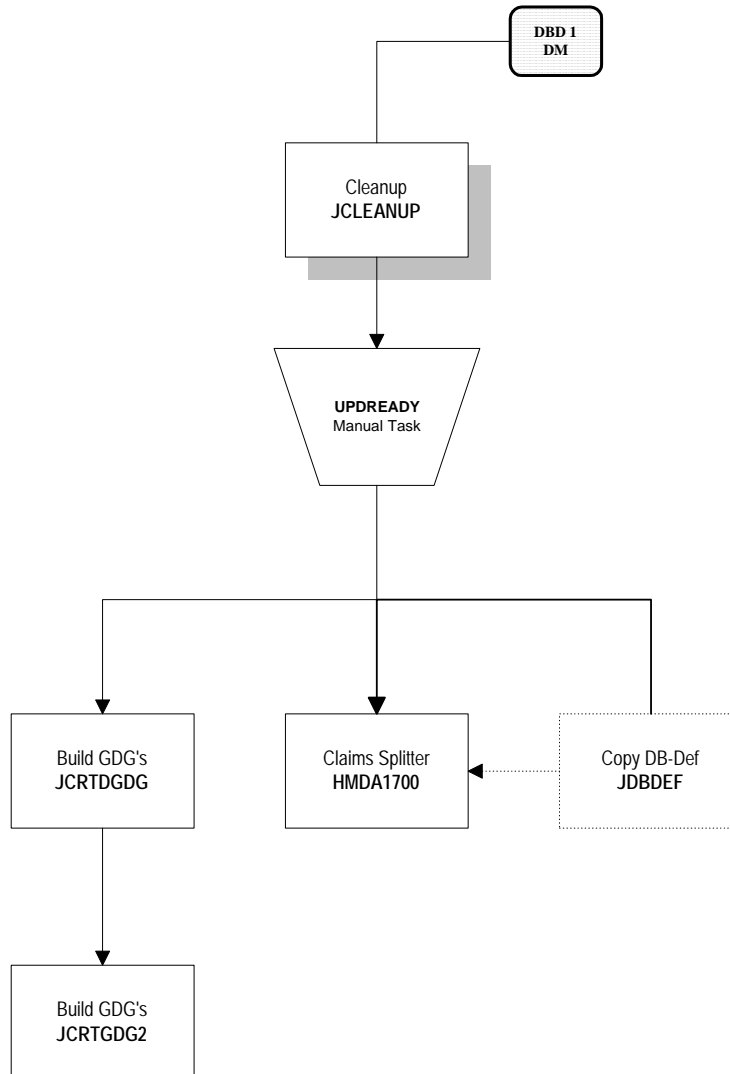
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 22

Eligibility Batch Flow - Update (U5ELIG)



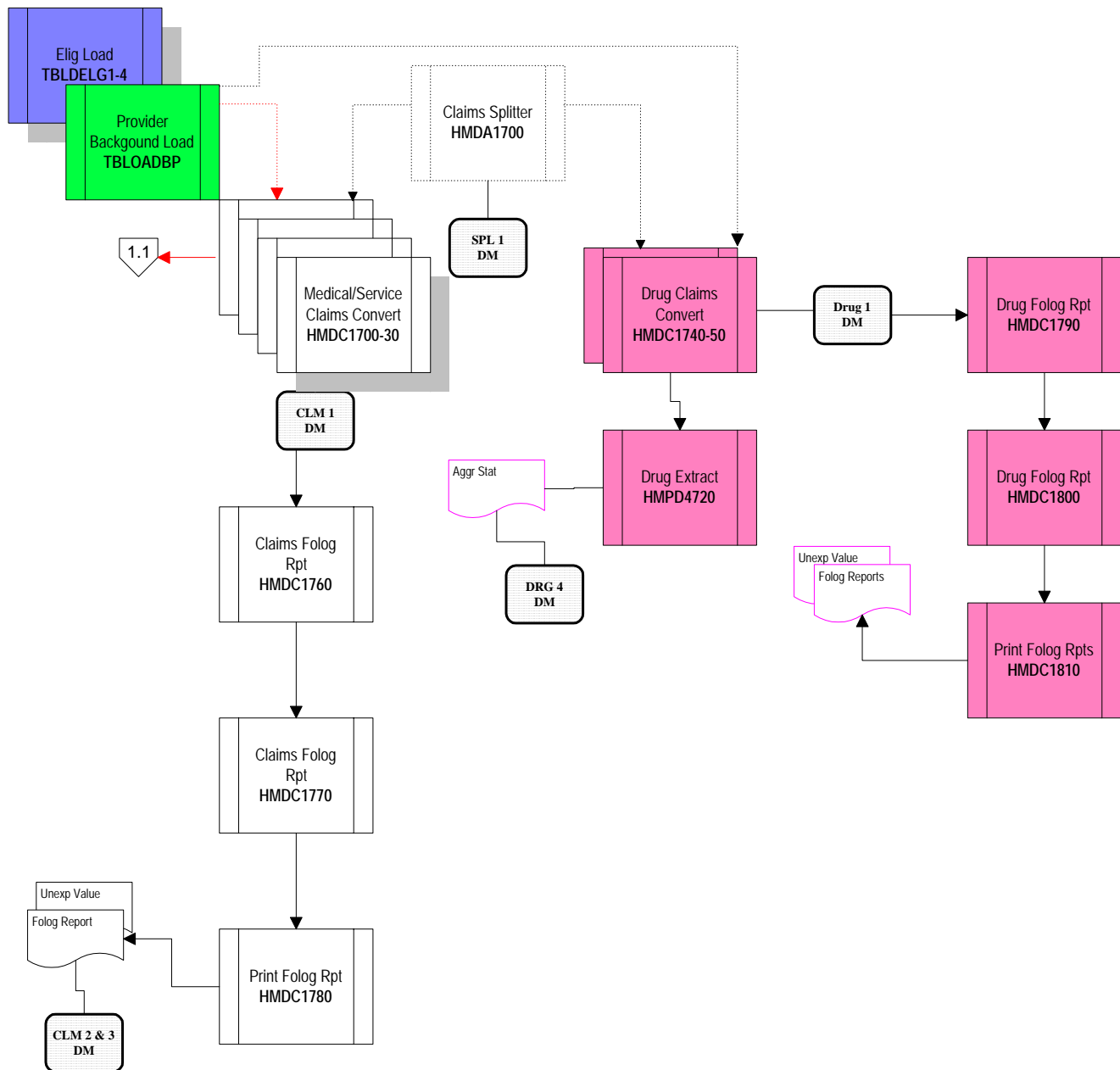
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 23

CLEANUP & GDG UPDATE FLOW - (U5GDG)



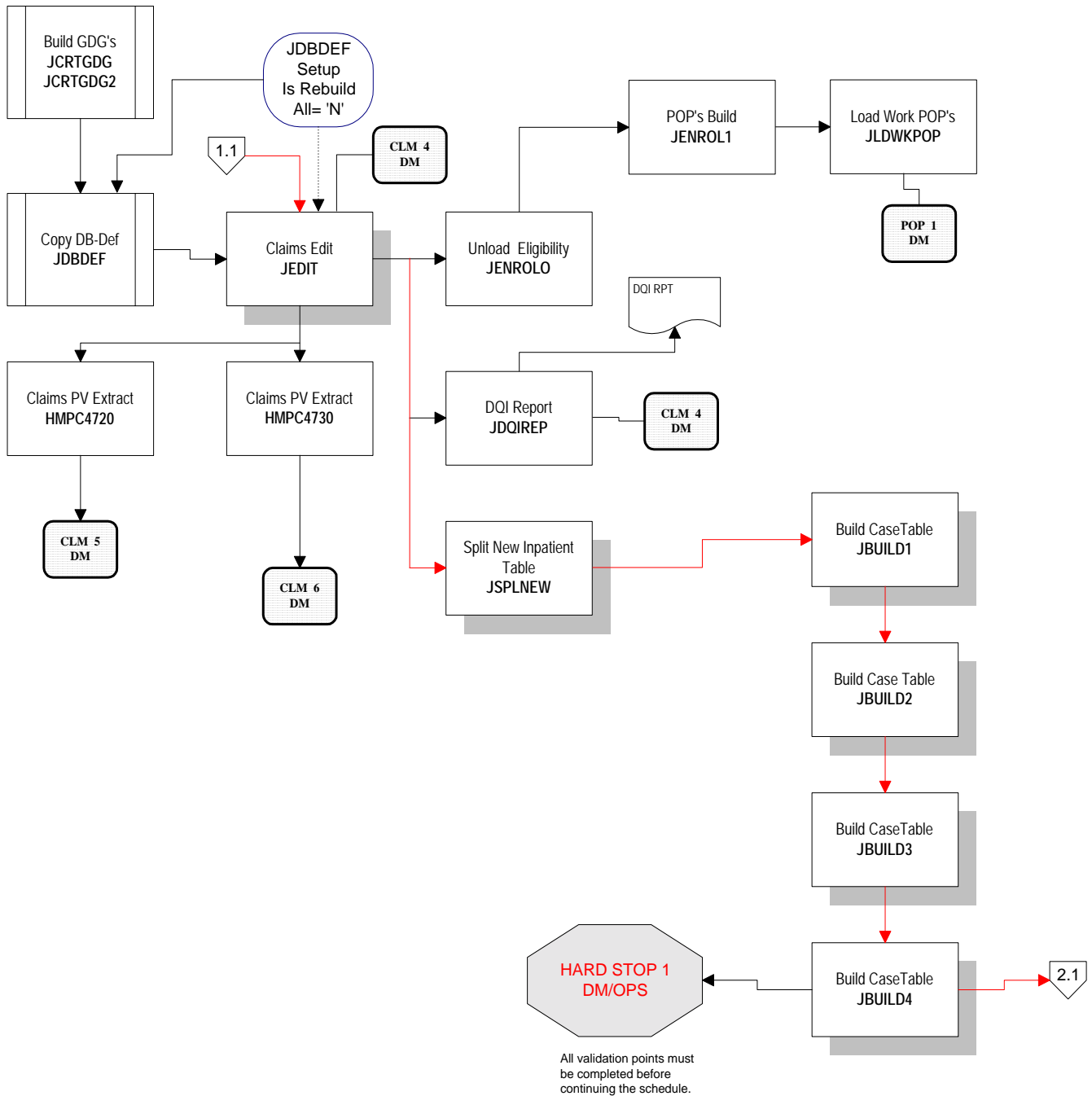
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 24

Claims/Drug Batch Flow - Update (U5CLMS)



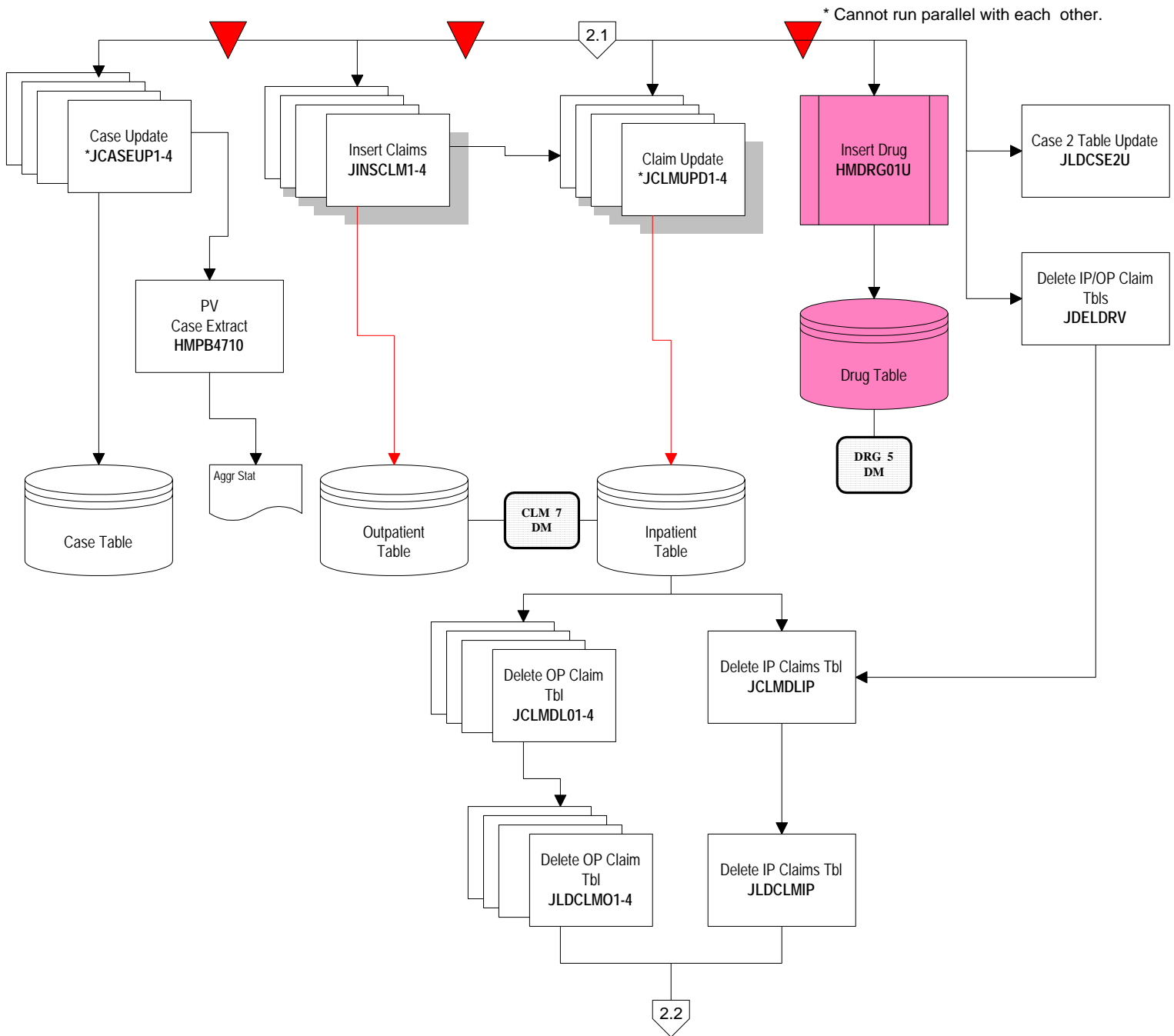
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
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Claims/Drug Batch Flow - Update (U5GDG & U5CLMS2)



MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
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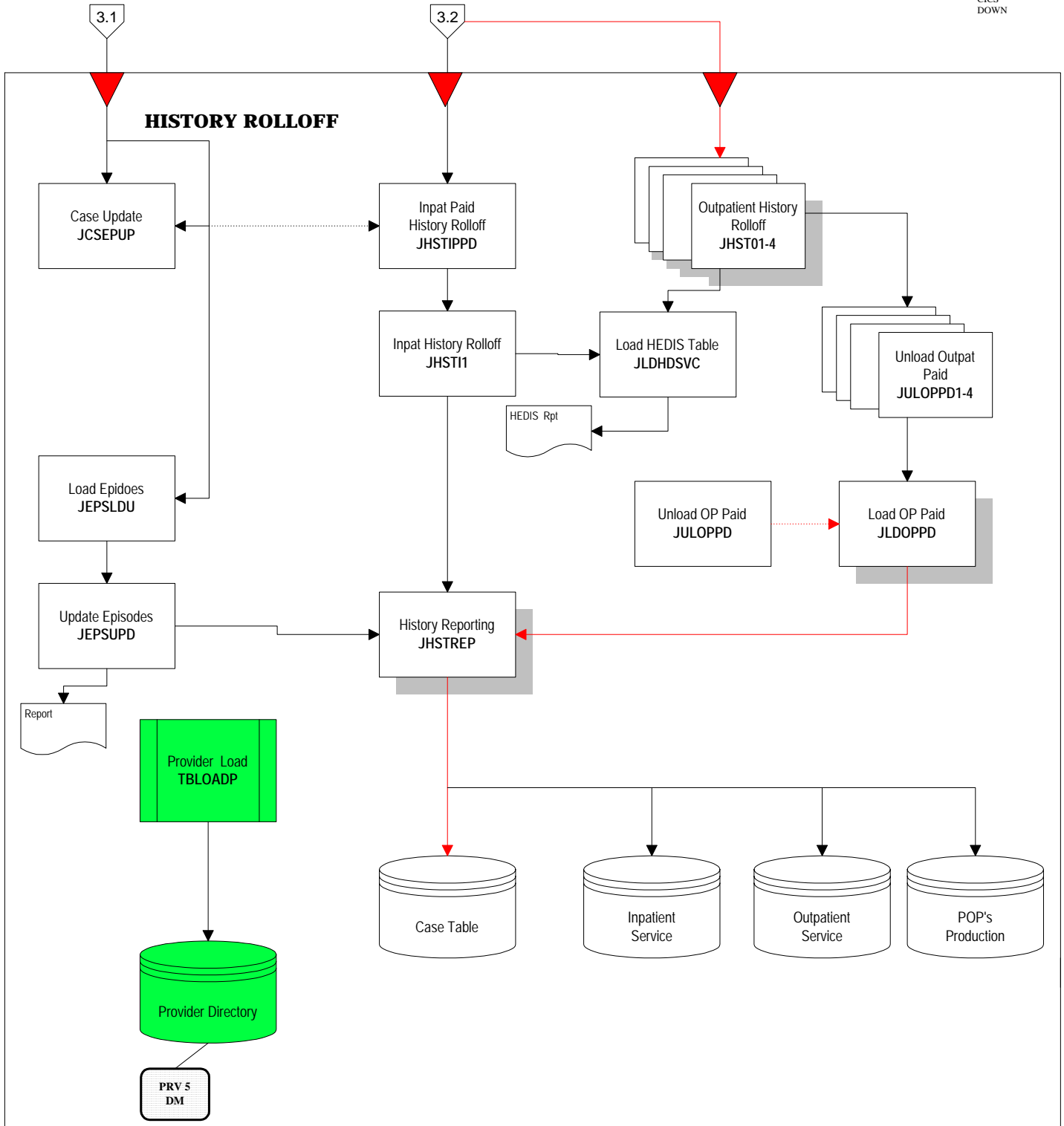
Claims/Drug Batch Flow - Update (U5CLMS2)



CICS UP

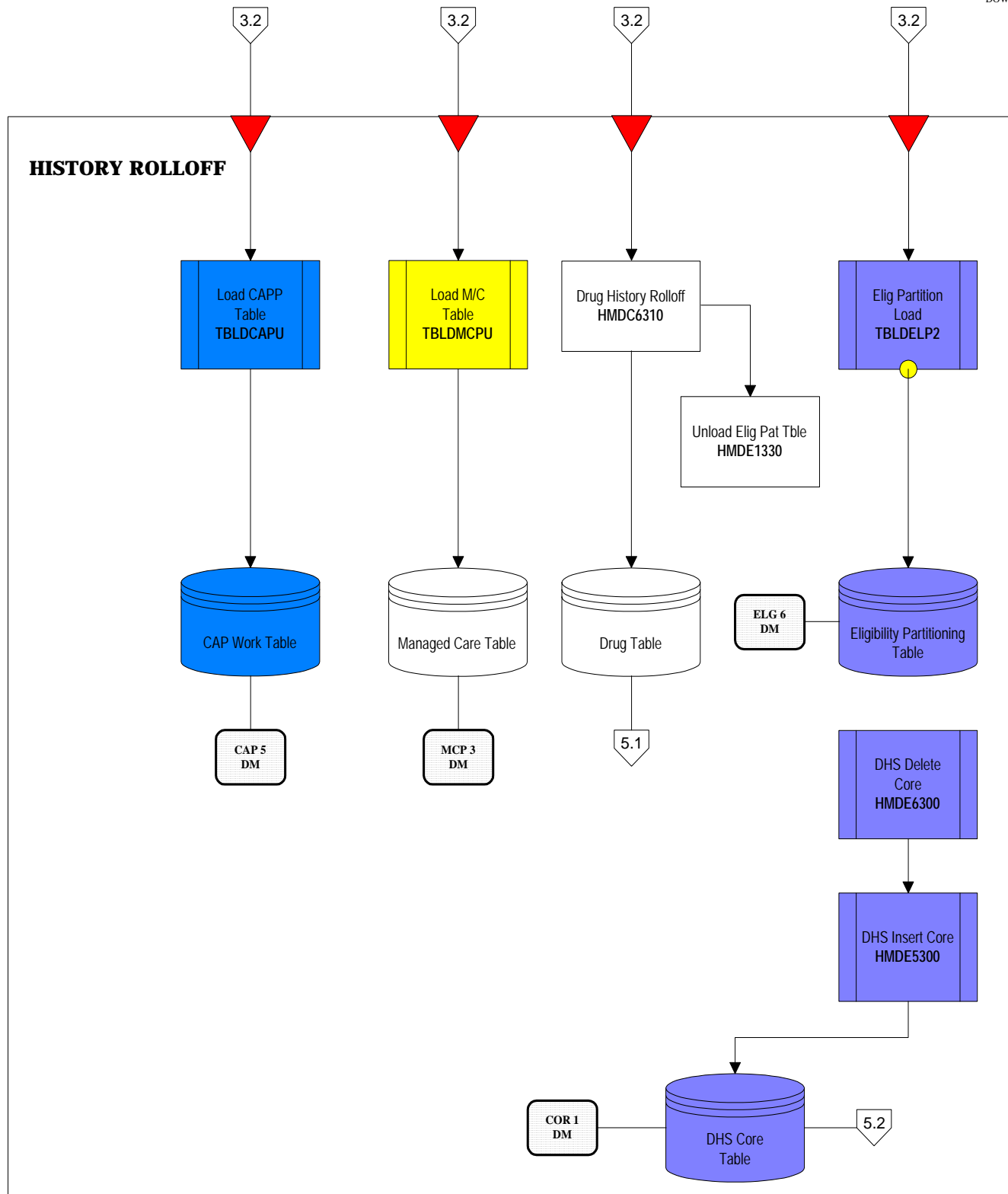
Claims/Drug Batch Flow - Update (U5HRO)

CICS
DOWN



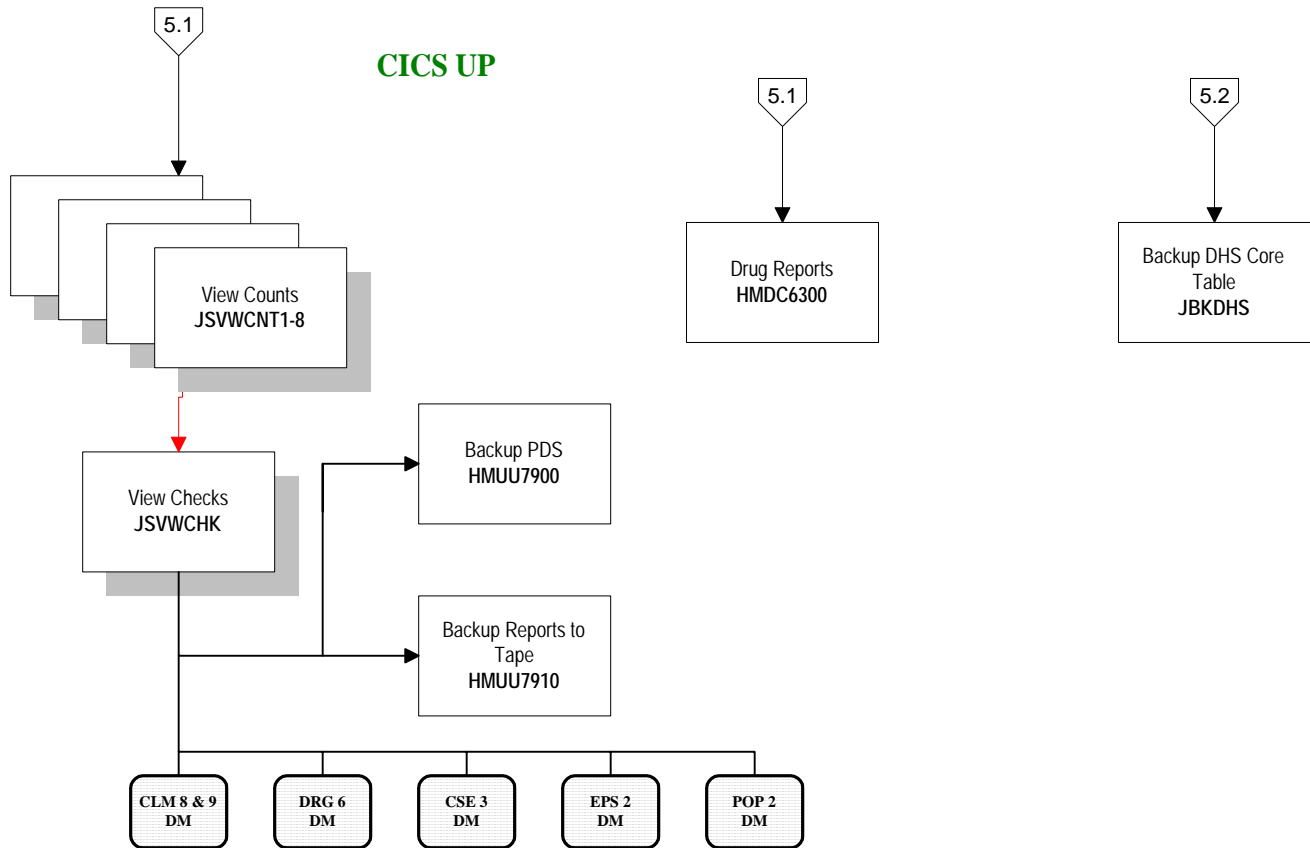
MEDI-CAL MIS/DSS	Policy/Process Section: Adhoc Processes	
POLICY/PROCESS	Policy/Process Title: ESP Build/Update Setup	
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Claims/Drug Batch Flow - Update (U5HR0)



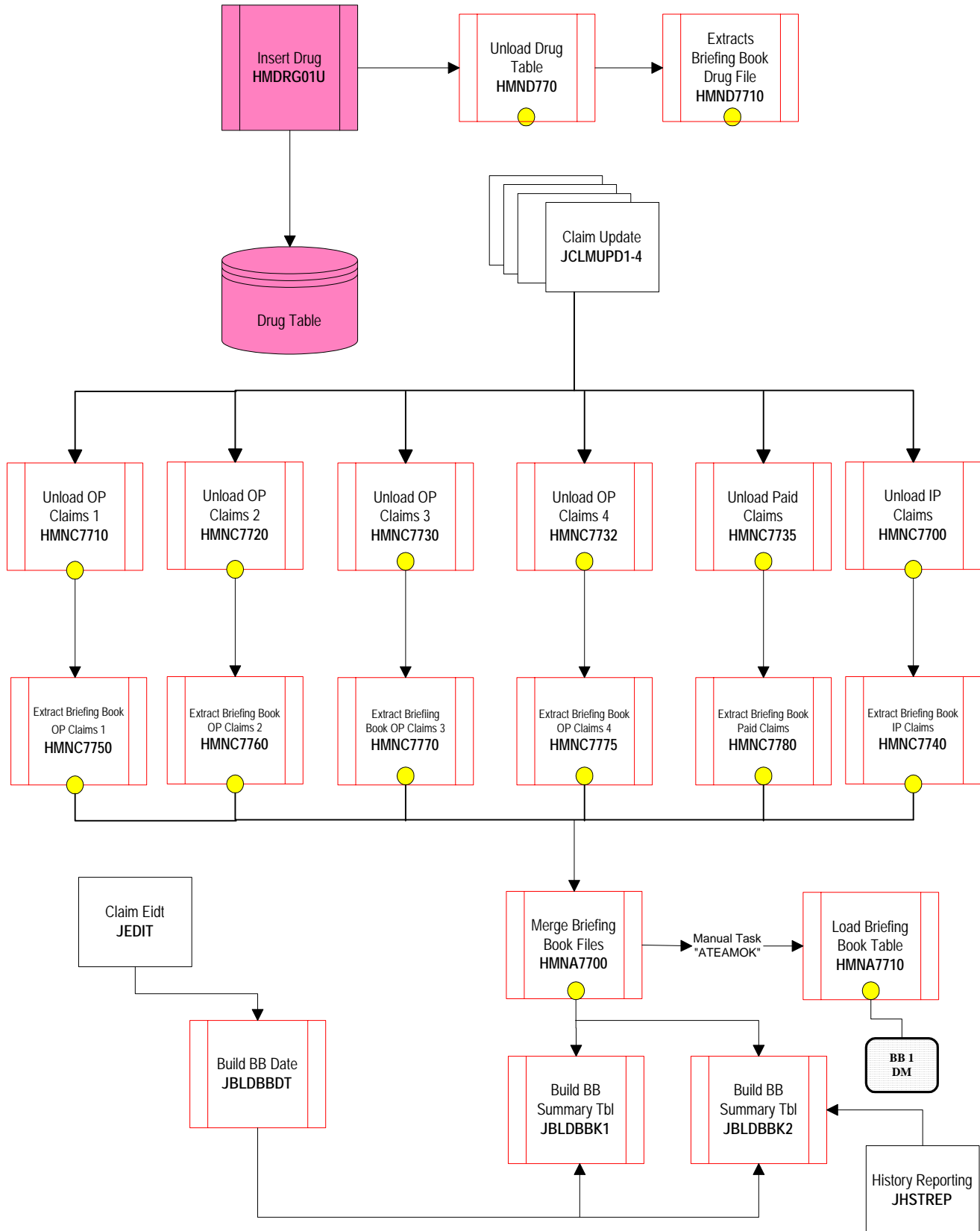
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
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Claims/Drug Batch Flow - Update (U5HRO)



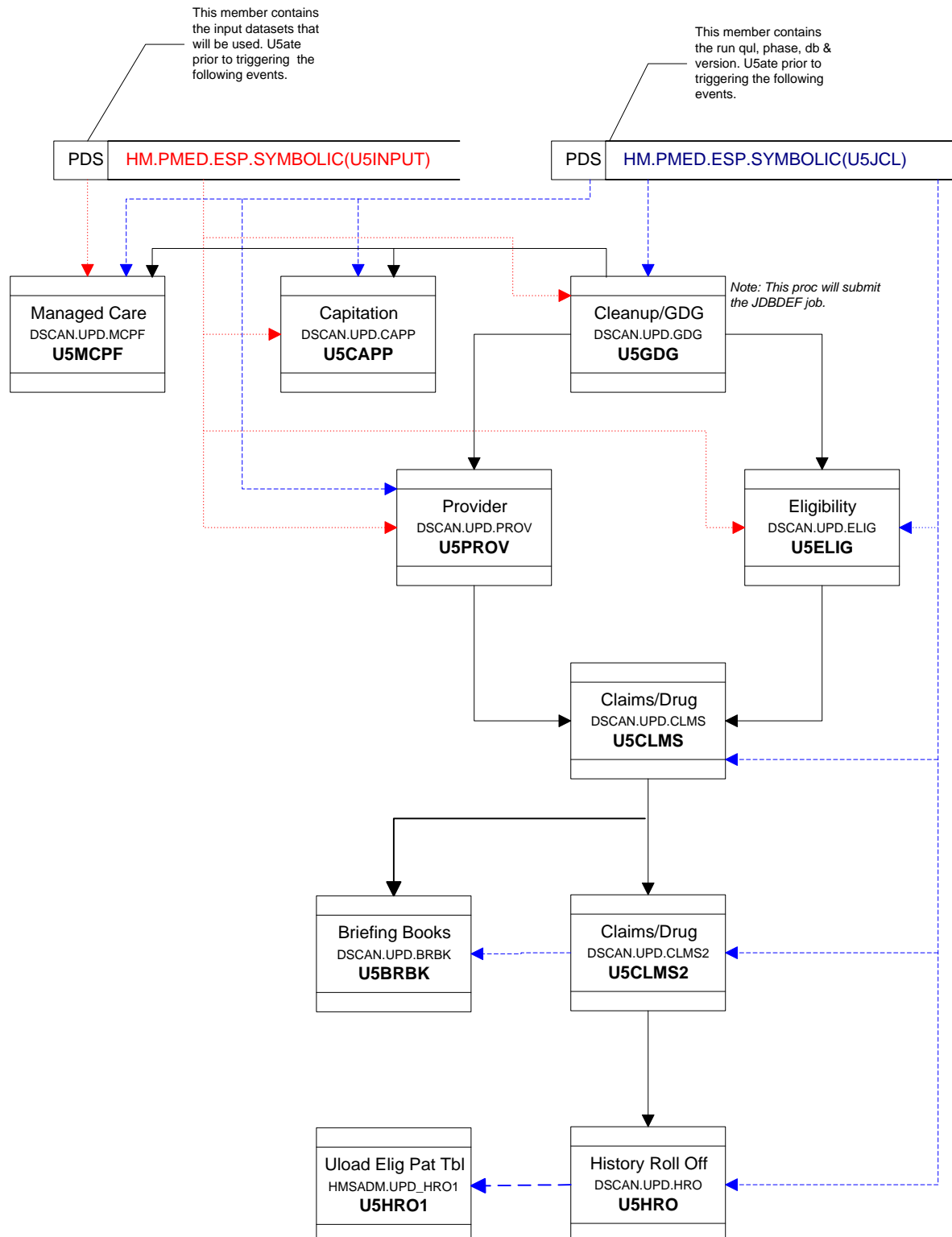
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
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Briefing Book Batch Flow - Update (U5BRBK)



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ESP PROCEDURE FLOW - UPDATE



MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
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Attachment 2. Overview of the Build Process

Type	Job Name	Job Description
CU	HMDF1700	Enrollment Conversion Converts Manage Care Enrollment raw data to the format used by the DataScan System Database.
CU	HMDF1710	Enrollment Folog Report Produces the Failed Operations Log report from failure encountered during the conversion process of the raw data.
CU	HMDF1720	Financial Conversion Converts Manage Care Financial raw data to the format used by the DataScan System Database.
CU	HMDF1730	Financial Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMDF1740	Member Month Conversion Converts Manage Care Member Months raw data to the format used by the DataScan System Database.
CU	HMDF1750	Member Month Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	TBLOADMC	Manage Care Table Load Loads the Manage Care table.
CU	HMDM1700	Capitation Conversion Converts Capitation raw data to the format used by DataScan System Database.
CU	HMDM1710	Capitation Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMPM4710	Capitation PV Extract Extracts the Capitation file for Panorama View.

CU – Custom Job CO – Core Job

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
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Type	Job Name	Job Description
CU	TBLDCAP	Capitation Table Load Load the Capitation table.
CU	HMDV0700	PMF GeoCode Converts the Provider PMF raw data for GeoCode.
CU	HMDV0710	MCP GeoCode Converts the Provider MCP raw data for GeoCode.
CU	HMDV1700	Provider Conversion Converts the Provider GeoCode data to the format used by DataScan System Database.
CU	HMDC1710	Provider Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the GeoCoding data.
CU	TBLOADP	Provider Table Load Load the Provider data to Provider Directory table.
CU	TBLOADBP	Provider Background Load Load the Provider Background table
CU	HMDE0700	Eligibility Splitter Splits the 30-month Eligibility input into five files sorted by start-date.
CU	HMDE0710-714	Eligibility GeoCode GeoCodes Eligibility raw data file prior to the conversion process.
CU	HMDE1701-05	Eligibility Conversion Converts the Eligibility GeoCode data to the format used by DataScan Database.
CU	HMDE1710	Eligibility Partitioning Splits Eligibility data into several partitioning files to prepare for partitioning.
CU	HMDE1720	Eligibility Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.

CU – Custom Job CO – Core Job

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
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Type	Job Name	Job Description
CO	HMDE1740	Continuous Enrollment Merges the five converted Eligibility tapes, and re-sequences the continuous enrollments afterwards.
CU	HMPE4700	Eligibility PV Extract Extracts the Eligibility file for Panorama View.
CU	TBLDELP2	Eligibility Partitioning Load Load the ELIG_PART file to the ELIG_PART table in the Build process.
CU	TBLDELGB	Eligibility Load Loads the Eligibility table for the Build process.
CU	TBLOADV	DHS Core Load Load the DHS table.
CU	HMDC1700-30	Claims Conversion Converts Claims raw data to the format used by the DataScan System Database.
CU	HMDC1740-50	Drug Conversion Converts Drug raw data to the format used by the DataScan System Database.
CU	HMDC1760-70	Claims Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMDC1780	Claims Folog Report Prints the Failed Operations Log report to the printer.
CU	HMDC1790-1800	Drug Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMDC1810	Drug Folog Report Prints Failed Operation Log report to the printer.
CU	HMPD4720	Drug PV Extract Extracts the Drug file for Panorama View.

CU – Custom Job CO – Core Job

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
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Type	Job Name	Job Description
CU	HMDRG01I-3I	Drug Edit Sorts the converted Drug files, inserts them into the table.
CU	HMDRGMRG	Drug Merge Merge the 10 files from created in the Drug Edit jobstreams.
CU	JLDDRUG	Drug Table Load Loads the Drug table.
CU	JCTGDG	Build GDG's Creates empty generation dataset groups that will be used throughout the build process.
CO	JDBDEF	Copy DB_Def Copies the DB_Def table to the WRK_DB_DEF table, allocates an EMP_ID/MEMBER_NBR driver file for JBUILD1-4, and allocates empty versions of all generation data group (GDG) files required by the batch process.
CU	JEDITSR1-4	Claims Edit Sort Sorts the converted Claims files.
CO	JEDIT1-4	Claims Edit Sorts the converted Claims file by clustering index assigns core fields, and edits claims.
CO	JDQIREP	DQI Report Generates the Data Quality Indicators Report.
CO	JSPLNEW4	Split New Inpatient Sorts the NEWCLAIM file, which contains new claims, by EMP_ID/MEMBER_NBR. It splits this file into four sorted NEWCLAIM files.
CU	JMERGOP	Merge OP Merges the 16 OP Claims file from JEDIT1-4.
CU	JDQIMRG	Merge DQI Files Merges the 4 DQI files for JEDIT1-4.
CU	HMPC4720	Caseable PV Extract Extracts the Panorama View Caseable data.

CU – Custom Job CO – Core Job

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
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Type	Job Name	Job Description
CU	HMPC4730	Non Caseable PV Extract Extracts the Panorama View Non Caseable data.
CO	JENROL11-15	POP's Build Sorts the converted Population file by clustering index and edits the data into a loadable file.
CU	JENROL19	POP's Build Merge Merge the converted Population files into one file.
CO	JLDWKPOP	Work POP's Load Loads converted Populations to the WORK_POP table.
CO	JBUILD1-4	Build Inpatient Table Build cases from inpatient claims.
CO	JULPAT1-4	Unload Patient Creates four index files which identify the OP_CLAIM tables on which claims for a particular patient are located.
CU	JLOADIP	Load Inpatient Table Sort the Claim IP file. Loads the sorted file to the CLAIM_IP table.
CO	JLOADCSE	Load Case Table Sort the Case file. Loads the sorted file to the CASE_IP table.
CO	JULOPCL1	Unload OP Claims Unload from the OP_CLAIM1 tables all rows which should be retained at the end of the batch run.
CU	HMPB4710	Casedays PV Extract Extracts the Panorama View Case data.
CO	JLDOP1S	Load OP Claims Sorts and merge two OPCLAIM file from JMEROP and JULOPCL1 jobs, and loads to the OPCLAIM1 table.
CO	JLDCSE2	Load Case2 Table Updates the CASE2 table.

CU – Custom Job CO – Core Job

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Type	Job Name	Job Description
CO	JEPSDRV4	Episodes Driver Creates four driver files that contain EMP_ID/MEMBER_NBRs and flags to indicate on which OP_CLAIM table these can be found. These files will be used by JEPSBLD1-4 jobstreams to build episodes.
CO	JEPSBLD1-4	Episodes Build Build episodes and generate the History Rolloff, DQ and Archived Episodes report files that will be used later in the update process to generate those reports.
CO	JEPSRPTR	Episodes Reporter Produces the Episodes Data Quality Indicator Report.
CO	JBINDBAT	Bind Batch Binds all of the batch programs after JLOADCASE and JCLOADIP.
CO	JBLDREP1-2	Build Reports Gathers statistics from the IP_CASE and IP_CLAIM tables to compute completion factors and generate the Inpatient Data Quality Indicators and Case Statistics reports.
CO	JHSTO1-4	History OP Roll claims off the OP_CLAIM1-4 tables.
CO	JLDHDSVC	Load HEDIS Table Loads the HEDIS_SVC table.
CO	JCSEUP	Case Update Updates the EPISODES_ID field on the IP_CASE table when episodes are enabled.
CO	JEPSLOAD	Load Episodes Load the Episodes records constructed by JEPSBLD1-4 to the Episodes table.
CO	JDRUGUP	Update Drug Table Updates Drug table with EPSIODE_IDs.
CO	JLDOPPD	Load OP Paid Table Sorts and merges the four WRKOPPDn files from JHOST01-4 and loads them on the OP_CLM_PD table.

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CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CO	JALLOC	Allocate Creates empty IP_CLM_PD and OP_CLM_PD financial information files, which are used for input to JHSTREP.
CO	JULOPPD	Unload OP Paid Unloads from the OP_CLM_PD tables, all rows which should be retained at the end of the batch run.
CO	JHSTI1	Inpatient History Rolloff Rolls cases and claims off the IP_CASE and IP_CLAIM tables.
CO	JHSTREP	History Reporting Produces the Incurred Rolled Off Amounts, Incurred Moved Into Paid Tables, and Paid Rolled Off Amounts reports, and updates the SOP_REP table.
CO	JBLDREP7	Build Reports Produces the Inpatient Case Data Quality Indicator and Statistics report.
CO	JCMPFCT	Completion Factors Computes completion factors and updates the WRK_C_FCTR table. Updates the ANALYSIS_START_DT and ANALYSIS_END_DT fields on the WRK_DB_DEF table.
CO	JSOPMRG	Merge SOP Files Merges four Source of Payment file from JEDIT1-4.
CO	JSOPREP	Source Of Payment Produces the Source of Payment Paid Basis and Source of Payment Incurred Basis reports.
CO	JSVWCNT	View Counts Counts the row in each of the security views.
CO	JSVWCHK	View Check Verifies the completion of the security views count task.
CO	JCLEANUP	Cleanup Clears records from the work tables and files.

CU – Custom Job CO – Core Job

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Type	Job Name	Job Description
CU	HMUU7900-10	PDS/Report Backup Backs up the Production PDS and Production Reports.
CU	HMND7700	Unload Drug Table Unloads Drug table for Briefing Book.
CU	HMND7710	Extracts BB Drug Extracts the Briefing Book Drug file.
CU	HMNC7745	Extracts BB IP Claims Extracts the Briefing Book IPCLAIM file from the IPLOAD file.
CU	HMNC7755	Extracts BB OP Claims Extracts the Briefing Book OPCLAIM file from the OPLOAD file.
CU	HMNA7705	Merge BB Files Merge Briefing Book extracted files.
CU	HMNA7710	Load BB File Loads the Briefing Book table.
CU	JBLDBBDT	Build BB Dates Build Briefing Book dates.
CU	JBLDBBK1-2	Build BB Summary Table Builds the Briefing Book Summary tables.
CO	JHECOLI	Eligibility Collapse Eligibility collapse for PMW.
CU	TBLOADEC	Load Eligibility Collapse Loads the Eligibility collapse table.
CO	JHELIGEX	Eligibility Extract The DQVALID step validates installation of the SAS access interface to DB2 product. The PELIGEX step creates a Eligibility view from CONV_POP table, and runs the SAS program to create 7 extract files from the DB2 tables.
CU	COPYPMW	Copy PMW Files Copies five files from Eligibility.

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CO	JHDRUGVW	Drug View Unload Creates view of Drug table, unloads view for drug detail extract.
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CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CO	JHDRUGEX	Drug Extract Reads unload from the Drug file using this data. The Drug detail extract file created for PMW.
CO	JHCLMVW1-8	Claim View Unload Creates view of OP_CLAIMS1-8 table, and unloads V_CLAIMSVW_1
CO	JHCLMEXT	Claims Extract Sorts the OP_CLAIM file, Reads the sorted file, Manipulates the data and writes out the file to be passed to PMW.

CU – Custom Job CO – Core Job

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Attachment 3. Overview of the Update Process

Type	Job Name	Job Description
CU	HMDF1700	Enrollment Conversion Converts Manage Care Enrollment raw data to the format used by the DataScan System Database.
CU	HMDF1710	Enrollment Folog Report Produces the Failed Operations Log report from failure encountered during the conversion process of the raw data.
CU	HMDF1720	Financial Conversion Converts Manage Care Financial raw data to the format used by the DataScan System Database.
CU	HMDF1730	Financial Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMDF1740	Member Month Conversion Converts Manage Care Member Months raw data to the format used by the DataScan System Database.
CU	HMDF1750	Member Month Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	TBLOADWK	Manage Care Work Table Load Loads the Manage Care Work table.
CU	HMDM1700	Capitation Conversion Converts Capitation raw data to the format used by DataScan System Database.
CU	HMDM1710	Capitation Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.

CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CU	HMPM4710	Capitation PV Extract Extracts the Capitation file for Panorama View.

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CU	TBLDCAWK	Capitation Work Table Load Loads the Capitation Work table.
CU	HMDV0700	PMF GeoCode Converts the Provider PMF raw data for GeoCode.
CU	HMDV0710	MCP GeoCode Converts the Provider MCP raw data for GeoCode.
CU	HMDV1300	Monthly Provider Conversion Converts the Provider GeoCode data to the format used by DataScan System Database.
CU	HMDC1710	Provider Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the GeoCoding data.
CU	TBLOADPW	Provider Work Table Load Loads the Provider data to Provider Work table.
CU	TBLOADBP	Provider Background Load Load the Provider Background table.
CU	HMDE0300	Eligibility Splitter Splits the 30-month Eligibility input into five files sorted by start-date.
CU	HMDE0310-313	Eligibility GeoCode GeoCodes Eligibility raw data file prior to the conversion process.
CU	HMDE1300	Eligibility Conversion Converts the Eligibility GeoCode data to the format used by DataScan Database.
CU	HMDE1310	Eligibility Partitioning Splits Eligibility data into several partitioning files to prepare for partitioning.
CU	HMDE1320	Eligibility Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.

CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CU	HMPE4300	Eligibility PV Extract

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		Extracts the Eligibility file for Panorama View.
CU	TBLDELP1	Eligibility Partitioning Load Load the ELIG_PART file to the ELIG_PART table in the Build process.
CU	TBLDELG1-4	Eligibility Load Loads the Eligibility table for the Update process.
CU	HMDA1700	Splitter Separate the F35 file into Drug and Claims.
CU	HMDC1700-30	Claims Conversion Converts Claims raw data to the format used by the DataScan System Database.
CU	HMDC1740-50	Drug Conversion Converts Drug raw data to the format used by the DataScan System Database.
CU	HMDC1760-70	Claims Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMDC1780	Claims Folog Report Prints the Failed Operations Log report to the printer.
CU	HMDC1790-1800	Drug Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMDC1810	Drug Folog Report Prints Failed Operation Log report to the printer.
CU	HMPD4720	Drug PV Extract Extracts the Drug file for Panorama View.
CU	JCRTGDG-2	Build GDG's Creates empty generation dataset groups that will be used throughout the update process.

CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CO	JDBDEF	Copy DB_Def

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		Copies the DB_Def table to the WRK_DB_DEF table, allocates an EMP_ID/MEMBER_NBR driver file for JBUILD1-4, and allocates empty versions of all generation data group (GDG) files required by the batch process.
CO	JEDIT	Claims Edit Sorts the converted Claims file by clustering index assigns core fields, and edits claims.
CU	HMPC4720	Caseable PV Extract Extracts the Panorama View Caseable data.
CU	HMPC4730	Non Caseable PV Extract Extracts the Panorama View Non Caseable data.
CO	JDQIREP	DQI Report Generates the Data Quality Indicators Report.
CO	JSPLNEW	Split New Inpatient Sorts the NEWCLAIM file, which contains new claims, by EMP_ID/MEMBER_NBR. It splits this file into four sorted NEWCLAIM files.
CU	JENROLO	Unload Eligibility Unloads Eligibility table based on APPL_IND for JENROL1 job.
CO	JENROL1	POP's Build Sorts the Converted Population file by clustering index and edits the data into a loadable file.
CO	JLDWKPOP	Work POP's Load Loads converted Populations to the WORK_POP table.
CO	JBUILD1-4	Build Inpatient Table Build cases from inpatient claims.
CO	JCASEUP1-4	Case Update Update the IP_CASE table.
CO	JINSCLM1-4	Insert Claims Insert claims from the OPCLAIMn file to the appropriate OP_CLAIM tables.
CO	JCLMUPD1-4	Claims Update Update the IP_CLAIM and IP_CLAIM1-4 table.

CU – Custom Job CO – Core Job

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Type	Job Name	Job Description
CO	JLDCSE2U	Case 2 Table Update Update the CASE2 table.
CO	JDELDRV	Delete IP/OP Claims Table Selects records to be deleted from IP_CLAIM table.
CU	HMDRG01U	Insert Drug Sorts the converted Drug files, inserts them into the Drug table and makes a image copy backup of the Drug table.
CU	HMPB4710	Casedays PV Extract Extracts the Panorama View Case data.
CO	JCLMDL01-4	Delete OP Claim Table Deletes claim records from the OP_CLAIM tables.
CO	JLDCLMO1-4	Load OP Claim Table Load additional claim records into the OP_CLAIM tables.
CO	JCLMDLIP	Delete IP Claim Table Deletes claim records from the IP_CLAIM table
CO	JLDCLMIP	Load IP Claim Table Load additional claim records into the IP_CLAIM tables.
CO	JICOP1	Image Copy Outpatient Make an image copy backup of the OP_CLAIM table.
CO	JICIP	Image Copy Inpatient Make an image copy backup of the IP_CLAIM table.
CO	JBLDREP1-2	Build Reports Gathers statistics from the IP_CASE and IP_CLAIM tables to compute completion factors and generate the Inpatient Data Quality Indicators and Case Statistics reports.
CO	JUPPAT1-4	Update Inpatient Create four index files which identify the OP_CLAIM and tables on which claims for a particular patient are located.
CO	JEPSDRV	Episodes Driver Creates four driver files that contain EMP_ID/MEMBER_NBRs and flags to indicate on which OP_CLAIM table these can be found. These files will be used by JEPSBLD1-4 jobstreams to build episodes.

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CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CO	JEPSBLD1-4	Episodes Build Build episodes and generate the History Rolloff, DQ and Archived Episodes report files that will be used later in the update process to generate those reports.
CO	JEPSRPTR	Episodes Reporter Produces the Episodes Data Quality Indicator Report.
CO	JDRUGUPD	Drug/Episodes Update Updates Drug table with EPISODE_IDs
CO	JBLDREP7	Build Reports Produces the Inpatient Case Data Quality Indicator and Statistics report.
CO	JCMPFCT	Completion Factors Computes completion factors and updates the WRK_C_FCTR table. Updates the ANALYSIS_START_DT and ANALYSIS_END_DT fields on the WRK_DB_DEF table.
CO	JSOPREP	Source Of Payment Produces the Source of Payment Paid Basis and Source of Payment Incurred Basis reports.
CO	JICCASH	Image Copy Cases Makes an image copy backup of the IP_CASE.
CO	JHSTOPPD	Outpatient History Rolloff Unloads from the OP_CLM_PD table all rows that should not be rolled off, then rolls claims off the OP_CLM_PD table.
CO	JCSEPUP	Case Update Updates the EPISDOE_ID field on the IP_CASE AND IP_CASE table when episodes are enable.
CO	JEPSLDU	Load Episodes Appends information from the file created in the JEPSBLD1-4 jobs to the EPIS_LINK tables.
CO	JEPSUPD	Update Episodes Updates and rolls records off the EPIS table.
CO	JHSTIPPD	Inpatient Paid History Rolloff Rolls claims off the IP_CLM_PD table.

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CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CO	JHSTI1	Inpatient History Rolloff Rolls cases and claims off the IP_CASE and IP_CLAIM tables.
CO	JLDHDSVC	Load HEDIS Table Loads the HEDIS_SVC table.
CO	JHSTREP	History Reporting Produces the Incurred Rolled Off Amounts, Incurred Moved Into Paid Tables, and Paid Rolled Off Amounts reports, and updates the SOP_REP table.
CO	JULOPPD	Unload OP Paid Unloads from the OP_CLM_PD tables, all rows which should be retained at the end of the batch run.
CO	JULOPPD1-4	Unload OP Claim Unloads from OP_CLM_PD tables all rows which should be retained at the end of the batch run.
CO	JLDOPPD	Load OP Paid Table Sorts and merges the four WRKOPPDn files from JHOST01-4 and loads them on the OP_CLM_PD table.
CU	TBLOADP	Provider Table Load Load the Provider data to Provider Directory table.
CU	TBLCAPU	Load Capitation Table Loads the Capitation table.
CU	TBLDMCPU	Load Manage Care Table Loads the Manage Care Table.
CU	HMDC6310	Drug History Rolloff Identifies the Drug rows to have the APPL-IND changed from N to Y and also those to roll off. Reads the pre-file and does the physical modification and delete.
CU	HMDE1330	Unload Eligibility Pat Table Unloads the ELIGPART table.

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CU	TBLDELP2	Eligibility Partition Loads the ELIG_PART file to the ELIG_PART table in the build process.
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CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CU	HMDE6300	DHS Delete Core Deletes DHS data in the DB2 table from the DHS driver file created in job HMDE1300 in the update process.
CU	HMDE5300	DHS Insert Core Deletes DHS data in the DB2 table from the DHS driver file created in job HMDE1300 in the update process
CU	HMDC6300	Drug Reports Produces financial reports for rolled off drug rows.
CU	JBKDHS	Backup DHS Core Creates backup of the vital.
CO	JSVWCNT	View Counts Counts the row in each of the security views.
CO	JSVWCHK	View Check Verifies the completion of the security views count task.
CO	JCLEANUP	Cleanup Clears records from the work tables and files.
CU	HMUU7900-10	PDS/Report Backup Backs up the Production PDS and Production Reports.

CU – Custom Job CO – Core Job

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1. Updating Functional Specifications

1.1 Overview

This document describes the process used to write functional specifications for the MEDSTAT Medi-Cal MIS/DSS project. This document details the standard formats used for all functional specifications at both the program level and field level. Using this document, a high degree of standardization and clarity will be achieved for all functional specifications.

The goal when writing functional specifications is to create a readable and understandable description of the specification. The primary audience is the Project Team end users, but the specifications must provide the programmers with all the necessary information to ensure all logic conditions are documented.

1.2 Purpose

The purpose of this document is to make the process of writing a functional specification clear and consistent. It is essential for the specifications to be clear, so that the transformation logic will be implemented correctly and consistently.

This benefits both the programmer responsible for coding the logic, and the reader who is looking for specific content. If the reader knows the expected format of a functional specification, it will greatly reduce document navigation time.

1.3 Scope

This document will be used by any project team member responsible for writing functional specifications. This document will guide the author through the completion of the specification.

1.4 Responsibility and Enforcement

The Change Control Committee is responsible for approving any changes or additions to the functional specification logic. The author of the functional specification is responsible for the initial creation of the specification, communicating this to the appropriate developer, and for testing the implementation of the specification.

1.5 General Considerations

A functional specification answers three principle questions:

- What are we doing to the data?

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- Why are we using transformation logic?
- What is the impact of doing it that way (the therefore)?

To answer the first question, (what?) a functional specification clearly explains by various means (English narrative, rules, tables, charts, etc.) the enhancements made to the data.

Answering the second question (why?) is key to understanding the enhancement logic, more important even than what the logic does.

Answering the third question (therefore?) explains the effects of this logic "downstream," on subsequent data enhancements (e.g., Case build, Episode build, Panorama View extract), application functionality, standard reports and user queries.

The DM Guide is very useful as a reference for answering these questions. It contains information for the MEDSTAT standard and custom fields.

1.6 Skill Requirements

The skills required to write a functional specification include:

- Knowledge of Windows File Management techniques
- Basic knowledge of Excel spreadsheets
- Basic knowledge of DataScan
- Familiarity with the IR Tool
- Familiarity with the DM Workbook
- Ability to use MS Access Forms
- Basic understanding of the rules of logic

1.7 Entry Criteria

This process is entered whenever a functional specification is created or modified. Prior to working on the specification an IR needs to be opened in the IR Tool (MS Access database) and the Change Control Committee must approve of the changes being made.

1.8 Procedure Steps

1.8.1 Program Level specifications (Background Documents)

The program level specifications will use the following outline (an example of a program level functional specification is attached as appendix):

- Overview

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This section gives a high level overview of the program. This includes but is not limited to explaining what input data is processed by this program, and where this program fits into the overall DataScan DSS processing flow.

- **Prerequisites / Pre-conversion**
This section describes any pre-requisites or pre-conversion processing required prior to running this program. This could include other conversion programs that must be run earlier in the processing flow.
- **Indices**
The section should include a list of all primary and secondary indices.
- **Input Data**
This section describes the input data. This should include general formatting issues. For example, "All values on the input file will be positive." It should also describe what each field on the input file represents.
- **Output Data**
This is a broad description of the output data. This might include listing any fields that are hidden in DataScan, or mentioning that certain financial fields do not carry pennies. Specific, field by field information is not maintained here, however. This information is in the field level specifications.
- **Reports**
This section will describe all of the reports that are produced by this program. This can include, but is not limited to, the Aggregate Statistics Report, the Failed Operations Log (FOLOG) Report, and the Unexpected Values Report.
- **Selection / Drop Criteria**
This section describes the logic used to either select or drop records to be processed. This should be defined in such a way that any given record is clearly either included or excluded from processing.
- **Processing Flow / Data Enhancements**
This section describes any enhancements used in processing the data. For example it might explain rounding used on financial fields, or whether an indicator field is used to set another field to a negative value.
- **New Installation Considerations**
This section describes any special considerations that would only apply during a database build, but not during an update.
- **Update Processing Considerations**

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This section describes any special considerations that would only apply during a database update, but not during a build.

- **Maps and Validation Tables**
This section will describe any maps or validation tables used by this program during processing. This should include where this map or table is used. For example, it should state that a map is used by the drop logic, or that it is used to set a particular field.
- **Tagging**
This section will detail any fields that have values tagged from other tables. It will also explain at a high level how that information is tagged to this program.
- **Summary of Document Changes**
This section will provide a change log to track any updates or corrections to the program level specifications. Any time a change is made it will be logged in the change log. An entry in the change log will have the following information regarding the change: date, author, phase, IR tracking number, and a brief description of what was changed.
- **Attachments**
The attachments should include sample pages from every report produced by this program, the COBOL input and output file layouts, and the Field Level Functional specifications, which will be described below. The attachments could also include any other documentation that will support or clarify the program level specification.

1.8.2 Field Level Specifications

The field level specifications are maintained in the DM Workbook (MS Access database). A functional specification should be clear and thorough. Every possible combination of input values should produce exactly one value for each output field. An example of a field level functional specification is attached as Appendix B.

Following is a brief description of the subsections in the DM Workbook that define the functional specification.

Output fields

- **Output field:** the PC name of the output field.
- **Definition:** the English description of what this field represents.
- **DB2 Name:** The name of the field on the DB2 tables.
- **DataScan:** this defines whether this field is a DataScan core field, a DataScan custom field, or a Medi-Cal custom field.
- **Missing value:** this indicates how the EGAD Missing field should be defined.
- **Data type:** this defines whether the output field is decimal or character.
- **Display length:** this defines how many digits there are in the display of the output field.

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- Storage length: this defines how many bytes are used to store this field.

Input fields

- Field name: the name of the input field from the COBOL record layout.
- Data type: this defines whether the input field is decimal or character.
- Length: this is the length of the input field in bytes.

Transformation

- Logic: a clear explanation, with tables, charts, etc. as required, of the transformation of the input value(s) to the output value(s). If tables, charts, or other documents that do not fit into this field are required, the location of these files on the LAN should be listed here.
- FOLOG calls: this should clearly define any combination of input values that would result in a FOLOG call. It should also define what the FOLOG Operator number for that call is, and what information is sent to the FOLOG report.
- Default: this indicates what value this field will be if no other logic prevails. This may be the missing value, but not necessarily.
- Precedents: This lists any fields that must be converted prior to converting this field.
- Impact: this is the downstream consequences of using this logic.
- Tech. Notes: this section would include any technical implementation issues that must be specifically addressed to set this field. Any pseudo-code to describe the transformation logic would be here.

Revisions

- Date: the date any change was made to the specification.
- Author: the person who made the change.
- Phase: the phase of the Medi-Cal MIS/DSS implementation during which the change was made.
- IR(s): the IR tracking number for the IRs that relate to this change.
- Description: a brief description of what was changed and why it was changed.

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1.9 Exit Criteria

After the functional specification is written it must be implemented by the appropriate developer. This implementation must be tested by the responsible Data Manager.

1.9.1 Exit Exception Criteria

There are no exit exception handling criteria.

1.9.2 Exit Exception Handling

1.10 Forms and Subject Examples

Attached to the end of this document are examples of both Program and Field level functional specifications.

1.11 Reference material

DM Workbook (MS Access)

IR Tool (MS Access)

DM Guide

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
04/28/00	Tyson Wright	Process Established

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Attachment 1. Example Program Level Functional Specification

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***Medi-Cal Management Information
System and Decision Support System (MIS/DSS)***

***Data Enhancement Functional Specifications
for Capitation Payment Table
Phase 5***



September 9, 1999

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2. Overview

Capitation data will be provided to the MEDSTAT Group by the Department of Health Services. The Capitation data includes the invoiced capitation amounts paid to health care plans. Each record represents the amount paid to a plan for a given aid code, month, and number of members (Member Months). The data is then processed and loaded into the Capitation DataScan table, a custom table created for the Medi-Cal MIS/DSS project, and an extract of this file is created and loaded into Panorama View in an aggregate form. Because of the confidentiality of its data, the Capitation DataScan table is *not* available to all users. The list of authorized users will be supplied by the Department of Health Services.

Figure 1 gives a high-level view of the major conversion processes and helps illustrate the relationship between the processes. The shaded box represents the conversion process being discussed in this section.

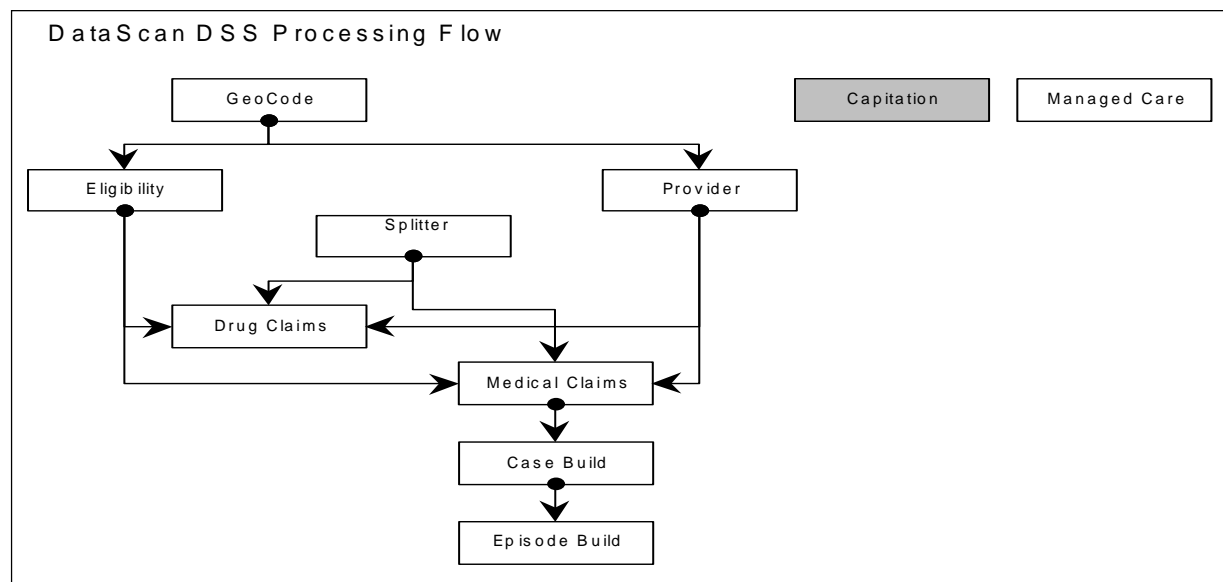


Figure 1. DataScan DSS Processing Flow

3. Prerequisites / Pre-Conversion

This data does not have any prerequisites and does not need to be pre-converted.

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4. Indexes

There are no indices set on the Capitation Table because of its small size. As the table size and utilization increases, indexing will be evaluated and implemented if necessary.

5. Input Data

- All values on the input file will be positive.
- Input file layouts can be found in Attachment 1.
- The following matrix describes notable characteristics of the input data:

Field Name	Description
CAP-PHP-CODE	The 3-digit Prepaid Health Plan Code.
CAP-PAYMENT-DATE	This is not the check date, but the date of the invoice.
CAP-SERVICE-DATE	The month/year of coverage for the initial capitation payment (The initial capitation payment is indicated when the adjustment indicator on the input file is <space>). For adjustments (both positive and negative adjustments), CAP-SERVICE-DATE indicates the month in which the adjustment is applicable to. It is NOT the month/year the adjustment has been made. For example, an adjustment for a May 1997 capitation service month may appear on any record with a later payment date.
CAP-PHP-COUNTY	The 2-digit county code of the Prepaid Health Plan.
CAP-AID-CODE	The aid code covered by this record.
CAP-ADJUSTMENT-INDICATOR	The adjustment indicators that identify initial payments, and negative or positive adjustments. The ADJCAP map identifies all the valid value.
CAP-NBR-MEMBER-MNTHS	For CAP-ADJUSTMENT INDICATOR = <space>, This field would contain the number of eligibles covered by the capitation payment. For CAP-ADJUSTMENT INDICATOR = 1 or 2, This field would contain the number of member months for the adjustment
CAP-NET-PAYMENT	The check amount of the capitation payment for the specified record. This field does carry pennies.

6. Output Data

- The output field NETPAY does *not* carry pennies.
- Negative adjustments will have a negative value in MBRMOS and NETPAY.

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- The following fields are maintained only for Panorama View and will be hidden in DataScan®:
 - ◆ CLMTYPE - Claim Type
 - ◆ PROVSPEC – Provider Specialty
 - ◆ VENDORCD – Vendor Code
 - ◆ SVCCAT – Service Category

7. Reports

The Capitation Convert Program will produce two reports: the Aggregate Statistics Report, and the Failed Operations Log (FOLOG) Report. Samples of these reports are included as attachments.

7.1 Aggregate Statistics Report

The Aggregate Statistics Report will document all records that were dropped because of incomplete information or field values that did not fall within a pre-defined range. The Aggregate Statistics Report will include:

- Total number of records received
- Subtotal of records dropped and the reason they were dropped
(For Capitation, records are subtotaled by NETPAY)
- Total of the records dropped
- Total of the records converted

7.2 Failed Operations Log (FOLOG) Report

The FOLOG Report will document records that have not been dropped but fail while converting raw input data into the format required for DataScan. One or more input fields that were not in the expected format (e.g., invalid data or non-numeric data in a numeric field) may cause the failure. The FOLOG Report will include:

The FOLOG Report will include:

- Field name
- Operation Number
- Description of the operation that failed
- Unmapped/undefined values found for that operation
- Count of the number of records with possible errors for that operation
- Percent of Total Records
- NETPAY amount associated with each failed value
- Percent of total NETPAY associated with each failed value

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The types of problems that the FOLOG report can highlight are:

- Wrong input file was converted.
- Wrong conversion program was run against the input file.
- Input file format changed.
- Unmapped fields or field values were in the input data.
- Incoming input data values were all blanks or zeros.
- Unexpected field values were present in the input data.
- Improper records were dropped.

NOTE: Refer to the Field Level Detail for more specific information on the FOLOG calls individual fields that are reported on the FOLOG Report.

7.3 Unexpected Values Report

The Unexpected Values Report will be very similar to the FOLOG Report with several additions and will:

- Indicate when a failed value has been previously reported to the State and they have indicated that it is in fact a failure
- List the unmapped/undefined values found for each operation by PHPCODE

The fields on the Unexpected Values Report are a subset of the FOLOG Report and are driven by two Excel spreadsheets. The first spreadsheet is a list of FOLOG operation numbers to be included in the report. The second is a list of previously approved values to map to other/invalid for each operation number. The State has the responsibility of determining fields (of those listed in the FOLOG Report) to include in the Unexpected Values Report.

8. Selection / Drop Criteria

Inclusion/exclusion criteria processing occurs at the beginning of the Capitation process, before any of the steps listed in the high-level process flow section.

Each drop condition will be identified separately on the Aggregate Statistics Report or on a separate build report.

8.1 Capitation Payment Date Format Invalid

Drop records if the Capitation Payment Date (CAP-PAYMENT-DATE) is not a valid date.

8.2 Capitation Payment Date Outside the Database Window

The DataScan database stores 30 months of paid data. During each monthly update the window moves up a month, with a new month of paid data being added, and the oldest month rolling off. Drop records where the Capitation Payment Date (CAP-PAYMENT-DATE) is earlier or later than the 30-month database window.

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8.3 Eligible County Invalid

Drop records when the Eligible County (CAP-PHP-COUNTY) is not validated against the ELIGCNTY map, matching on: CAP-PHP-COUNTY = ELIGCNTY Code.

8.4 Aid Code Invalid

Drop records when the Aid Code (CAP-AID-CODE) is not validated against the ELIGCAT map, matching on: CAP-AID-CODE = ELIGCAT Aid Code. The ELIGCAT map contains a list of valid Federally Funded Program (FFP) Aid Codes to be included in the MIS/DSS.

8.5 Member Months Invalid

Drop records if the number of member months (CAP-NBR-MEMBER-MNTHS) is not numeric. Drop records if the number of member months (CAP-NBR-MEMBER-MNTHS) is equal to zero and the adjustment indicator (CAP-ADJUSTMENT-INDICATOR) is a value of space, 1 or 2. Other adjustment indicator values represent withholds and paybacks and may have a member months value equal to zero and will not have an aid code value.

8.6 Capitation Payment Invalid

Drop records if the payment amount (CAP-PAYMENT) is invalid. The payment amount is considered invalid for any of the following conditions:

- Is not numeric
- Is equal to zero
- Is larger than the allowable amount (999,999,999.00)

8.7 Duplicate Records

Check for records that are duplicated. After all the field level conversions have been performed, if the combination of key fields is identical, the duplicated record is dropped. The key fields are:

- PHPCODE, PDDATE, SVCDATE, ELIGCNTY, AIDCODE, ADJCAP, MBRMOS, NETPAY

9. Process Flow / Data Enhancements

- If the converted ADJIND field is a '1' (negative adjustment), the fields MBRMOS (Total Member Months) and NETPAY will be negated.
- The input field CAP-NET-PAYMENT does carry pennies and the output field NETPAY does *not* carry pennies. Therefore, rounding will occur during the data conversion process.

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- The fields CAP-PHP-CODE and CAP-AID-CODE are left justified and blank filled and must be right justified and zero filled before any conversion processing occurs.

10. New Installation Considerations

There are no installation considerations, including special processing to consider.

11. Update Processing Considerations

MEDSTAT receives a monthly update file from the State for Capitation. This file contains the most recent month of processed capitation data and can include numerous values in the PDDATE field. The Capitation Update Process is as follows:

- The monthly update file is processed by the Capitation Convert Program using the RUNDATE parameter that indicates update processing. When the RUNDATE parameter specifies an update, the convert program verifies the PDDATE is within the 30-month window.
- Copy the current production Capitation Table to a worktable.

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- Add the converted data into the worktable.
If a duplicate (based on key fields in Section 7) is found on both the current production table and the converted data, the record from the production table (first received) will be retained and the record from the converted data will be deleted.
This differs from the Managed Care Plan Financials conversion update process, which chooses the record “last received” for retention, because we are checking for duplicates by using all of the primary key identifier fields (PHPCODE, PDDATE, SVCDATE, ELIGCNTY, AIDCODE and ADJCAP) and all of the value fields (MBRMOS and NETPAY). In the Capitation conversion update process, we are trying to prevent duplicate values, whereas in the Managed Care Plan Financials conversion update process we check for duplicates using only the primary key identifier fields and are replacing the value fields with new data.
- Send the converted monthly update file to Panorama View.
- Delete data from the Work Table that is prior to the 30-month database window.
- Verify the worktable and if correct, continue to the next step. Otherwise, research and correct.
- Copy the worktable to the Production Capitation Table. (If possible, this should be concurrent with the “flipping of the switch” to the new database window)
- Verify the new Production Capitation Table and if correct, approve release of table to the user.

12. Maps and Validation Tables

Maps are used to validate source values before moving them as DataScan® output or to look up values for the DataScan® output based on source values. Each map should be sorted by the source values before the conversion program is executed. It is recommended that a map be sorted each time it is updated. Hardcopy and Softcopy (for very large maps) of these maps are provided in the Maps section of the System Design Deliverable. Maps used in Capitation processing include:

Map	Fields	Purpose
ELIGCAT	AIDCODE	Used in Selection/Drop Criteria (See Prior section)
	ELIGCAT	Used to obtain value for ELIGCAT using AIDCODE
ELIGCNTY	ELIGCNTY	Used in Selection/Drop Criteria (See Prior section)
ADJCAP	ADJCAP	Used to validate the ADJCAP value and to assign the MEDSTAT ADJIND field. Also used to determine whether the MBRMOS and NETPAY fields are positive or negative values.
	ADJIND	
CDBFOLOE	N/A	Failed Operations Log (FOLOG) Report – FOLOG operation numbers to be included in the report.

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Map	Fields	Purpose
FLGKEYCA	N/A	Used by the Unexpected Values Report – FOLOG operation numbers to be included in the report
FLGAPRCA	N/A	Used by the Unexpected Values Report – values approved to map to other/invalid
NETPROD	PHPCODE NETWORK	Used to validate PHPCODE Used to obtain value for NETWORK using PHPCODE

13. Tagging

There are no fields that have values tagged from other tables.

14. Summary of Document Changes

<u>Date</u>	<u>Author</u>	<u>Phase</u>	<u>IRs</u>	<u>Description of Changes</u>
8/27/99	K. Key	5	1034	In the Maps and Validation Tables section, removed MBRMOS and NETPAY as fields that use the ADJCAP map.
8/27/99	K. Key	5	1207	In the Update Process Considerations section, added an explanation as to why the retention of records (first vs. last) is different from the Managed Care Plan Financials conversion update process.
8/27/99	K. Key	5	N/A	Clarified the description of Cap-Service-Date, under the Input Data Section, to say that the adjustment is the month it is applicable to, not the month is made.
8/24/99	K. Key	5	1207	Added drop condition for duplicate records. Deleted item under Process Flow about each unique PHPCODE, PDDATE, SVCDATE, ELIGCNTY, and AIDCODE combination being able to have only one adjustment indicator. Modified the item under Process Flow to indicate the MBRMOS and NETPAY will be negated in the converted ADJIND is '1'. Modified Update Processing Considerations section to add duplicate record checking when adding the converted data into the work table.
8/24/99	K. Key	5	1317	Removed the drop condition for dental PHP Codes.
8/23/99	K. Key	5	1368	Added section for new Unexpected Values Report. Added sample report as attachment. Updated Maps and Validation Tables section with CDBFOLOE, FLGKEYCA and FLGAPRCA.
8/23/99	K. Key	5	1034	Modified the drop condition for MBRMOS=0 to only drop when the input ADJIND is blank, 1 or 2. The other ADJIND codes represent withholds and paybacks and may have MBRMOS=0 and not have an aid code.

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<u>Date</u>	<u>Author</u>	<u>Phase</u>	<u>IRs</u>	<u>Description of Changes</u>
8/20/99	K. Key	5	1468	Added CAPCV-AID-CODE to the Capitation Load File Layout (CRCCAPP2). Moved remaining drop conditions (Eligible County Invalid and Aid Code Invalid) from the phase-specific drop logic document to the Capitation background document. Removed county restrictions when validating aid code against the ELIGCAT map. Removed references to AFDCAID map. The use of the AFDCAID map to identify TANF codes ceased beginning with Phase 5, because all aid codes are being accepted for all counties.
4/28/99	K. Key	4	1362	Reordered section 7, Selection/Drop Criteria, to be in the same order that the drops actually occur. Added another drop criteria for Capitation Payment Dates that are not valid dates. Updated attachment of sample Aggregate Statistics Report to reflect the new drop criteria category and the reordering of the counts.
2/4/99	K. Key	4	N/A	Added output file record layout attachment.
2/4/99	K. Key	3	1231	Updated input file record layout attachment.
1/28/99	K. Key	3	1231	Reformatted section 7, Selection/Drop Criteria. Corrected amount of allowable amount on drop condition for payment amount (from 999,999,999.99 to 999,999,999.00). Added new drop condition for Dental PHP Codes (400-408 and 681-684). Updated sample Aggregate Statistics Report to display new drop condition.
1/25/99	K. Key	4	N/A	Added attachments of sample reports.
1/15/99	C. Hubbert	4	N/A	Modification to Section 10 – Update processing considerations because of State Walkthrough.
12/31/98	C. Hubbert	4	739	Reformatted background document into standardized format
11/24/98	C. Hubbert	3	723	Included Section on Monthly Update
11/23/98	C. Hubbert	3	996	Changed NONFFPAIDCODE Map to AFDCAID Map in Mapping Section ; Added Revision Log
6/12/98	C. Hubbert, J. Dittman	3		New Document.

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Attachment 2. Sample Aggregate Statistics Report

CSBSTAT	MEDI-CAL		PAGE : 1
AGGREGATE STATISTICS FOR CAPITATION PAYMENTS FROM 06/01/96 TO 11/30/98			DATE : 03/23/1999
			TIME : 14:43:05
	# OF RECS	PAY-AMT	

# RECS READ	25,330	3,613,713,729.16	

PHPCODE DENTAL INVALID	3,267	57,374,893.00	
PAID DATE FORMAT INVALID			
PAID DATE OUTSIDE RANGE	2,880	397,872,531.86	
COUNTY NOT IN ELIGCTY			
AID CODE NOT IN ELIGCAT	186	874,740.87	
AID CODE NOT IN AFDCALD	6,964	162,024,982.22	
MEMBER MONTHS NOT NUMERI			
MEMBER MONTHS = ZERO			
PAYMENT NOT NUMERIC			
PAYMENT = ZERO	8		
PAYMENT > 999999999.00			

TOTAL RECS DROPPED	13,305	618,147,147.95	
# OF ENR RECS CONVERTED	12,025	2,995,566,581.21	

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Attachment 3. Sample Failed Operations Log (FOLOG) Report

MEDFOLO		MEDI-CAL		PAGE : 1	
		EXTERNAL FOLOG REPORT - CAPITATION CONVERT		DATE : 10/22/1998	
INPUT FILE : CAPITATION CONVERT				TIME : 13:09:26	
NUMBER OF RECORDS : 9,544				TOTAL NETPAY : \$ 0.00	
FIELD	OPR OPERATION	FIELD			
NAME	NO. DESCRIPTION	VALUE	COUNT	%OF TOT RECORDS	NETPAY AMOUNT %OF TOT NETPAY

TOTAL NUMBER OF FAILURES	:	0			
TOTAL NUMBER OF OPERATIONS	:	6			
AVERAGE FAILURES/OPERATION	:				
AVERAGE FAILURES/RECORD	:				

XREF LIC/CLIA	10 PMF PROVLC/CLIANUM	MISSING	64,529	13.8646	0.00 0.0000
TOTALS FOR THE OPR-NO 10 :			64,529	13.8646	0.00 0.0000

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Attachment 4. Sample Unexpected Values Report

MDU120		MEDI-CAL				PAGE : 1	
UNEXPECTED VALUES REPORT - CAPITATION CONVERT						DATE : 08/12/1999	
						TIME : 15:42:44	
INPUT FILE : CAPITATION CONVERT							
NUMBER OF RECORDS : 19						TOTAL NETPAY : \$ 0.00	

FIELD NAME	OPR OPERATION NO. DESCRIPTION	NEW FIELD VALUE	PHP CODE	ERROR COUNT	%OF TOT RECORDS	NETPAY AMOUNT	%OF TOT NETPAY

NETWORK-ID	2 MEDICAL PLAN	*		1	5.2632	0.00	0.0000
		300		1	5.2632	0.00	0.0000
		* 421		1	5.2632	0.00	0.0000
		985		1	5.2632	0.00	0.0000

TOTALS FOR THE OPR-NO 2 :				4	21.0526	0.00	0.0000
SERVICE DATE	3 SERVICE DATE	001997		1	5.2632	0.00	0.0000

TOTALS FOR THE OPR-NO 3 :				1	5.2632	0.00	0.0000

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Attachment 5. CRCCAPP1 – Capitation Payment Input File Layout

```

000010*****
000020* CRCCAPP1*
000030*
000040* THIS IS THE CAPITATION PAYMENT RECORD FOR THE CONVERT*
000050* REPLACE THIS WITH THE RAW DATA RECORD LAYOUT FROM THE*
000060* DATA MANAGER - 56 CHAR. LONG*
000070*****
      05 :PFX:-PHP-CODE          PIC X(03).
      88 :PFX:-DROP-PHP-CODE-TRUE  VALUE '681' THRU '684'
                                     '400' THRU '408'.
IR1231*PATCH TO DROP DENTAL RECORDS FROM CONSIDERATION.
      05 :PFX:-PAYMENT-DATE.
          15 :PFX:-PAYMENT-YEAR      PIC X(04).
          15 :PFX:-PAYMENT-MONTH     PIC X(02).
          15 :PFX:-PAYMENT-DAY       PIC X(02).
      05 :PFX:-SERVICE-DATE.
          15 :PFX:-SERVICE-MONTH    PIC X(02).
          15 :PFX:-SERVICE-YEAR     PIC X(04).
      05 :PFX:-PHP-COUNTY           PIC 9(02).
      05 :PFX:-AID-CODE             PIC X(02).
      05 :PFX:-ADJUSTMENT-INDICATOR PIC X(01).
      05 :PFX:-NBR-MEMBER-MNTHS     PIC 9(07).
      05 :PFX:-PAYMENT              PIC 9(10)V99.
      05 FILLER                    PIC X(15).

```

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Attachment 6. CRCCAPP2 – Capitation Load File Layout

```

000100*****
000200*   CRCCAPP2                                     *
000300*                                             *
000400*   THIS IS THE OUTPUT RECORD FOR THE CAPITATION PAYMENT CONVERT *
000400*   IT IS USED TO LOAD THE DATASCAN TABLE                               *
000500*****
      01  CAPP-CONVERT-RECORD.
IR1034*NEW FIELD.
      05  CAPCV-ADJ-CAP                                PIC X(01).
      05  CAPCV-ADJ-IND                                PIC S9(01)V COMP-3.
      05  CAPCV-AID-CODE                               PIC X(02).
      05  CAPCV-CLAIM-TYPE                             PIC X(01).
      05  CAPCV-COUNTY-CD                             PIC S9(02)V COMP-3.
      05  CAPCV-DENTAL-PLAN-CD                         PIC X(03).
      05  CAPCV-ELIG-CAT                              PIC X(02).
      05  CAPCV-MEMBER-MONTHS                         PIC S9(07)V COMP-3.
      05  CAPCV-NET-PAY-AMT                           PIC S9(09)V COMP-3.
      05  CAPCV-NETWORK-ID                            PIC X(03).
      05  CAPCV-PD-DATE                               PIC X(10).
      05  CAPCV-PHP-CODE                              PIC X(03).
      05  CAPCV-PROV-SPEC                             PIC X(02).
      05  CAPCV-PROVIDER-CNTY                         PIC S9(02)V COMP-3.
      05  CAPCV-SVC-CAT                               PIC S9(04) COMP.
      05  CAPCV-SVC-DT                                PIC X(10).
      05  CAPCV-VENDOR-CD                             PIC X(02).
      05  CAPCV-PV-RUNDATE                             PIC X(10).

```

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Attachment 7. Example Field Level Functional Specification

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Merged PMF/MCP Provider via PLF

Output Field: **BEDCOUNT** Bedcount

Definition: The number of beds in the facility.

DB2 Name: BED_COUNT

DataScan: DataScan custom field **Missing value:** Zero

Data Type: DECIMAL

Display Length: 5, 0

Storage Length: ??

Input Fields:	Field Name	Data Type	Length
	MCP-P-BED-COUNT	9	5
	PMEX-HOSP-NO-BEDS-232	9	5
	PMEX-LTC-NO-BEDS-232	9	5
	PMEX-MAIN-REC-TYPE	X	1

Logic: Move the input field as is (if numeric), except that:

1. On the Merged PMF, there are two bed-count fields, and we must use the one which corresponds to the record type:

PMEX-HOSP-NO-BEDS-232 with PMEX-MAIN-REC-TYPE = 'C' (hospital)
PMEX-LTC-NO-BEDS-232 with PMEX-MAIN-REC-TYPE = 'B' (LTC facility).

(On the MCP Provider file, there is only one bed-count field.)

2. If the input field value > 2200, set BEDCOUNT to 2199.

FOLOG Calls:

1. When PMEX-HOSP-NO-BEDS-232 is not numeric or is missing and PMEX-MAIN-REC-TYP is not equal to 'C' (call FOLOG - invalid bed count ignored)
2. When PMEX-HOSP-NO-BEDS-232 is not numeric or is missing and PMEX-MAIN-REC-TYP is equal to 'C' (call FOLOG - report missing BEDCOUNT).
3. When PMEX-LTC-NO-BEDS-232 is numeric and not missing and PMEX-MAIN-REC-TYP is not equal to 'B' (call FOLOG - invalid bed count ignored)
4. When PMEX-LTC-NO-BEDS-232 is not numeric or missing and PMEX-MAIN-REC-TYP is equal to 'B' (call FOLOG - report missing BEDCOUNT).

Default: Zero (missing value). This is assigned if the input field is non-numeric; or, for the Merged PMF, the main record type is not one of the listed values.

Precedents: None

Impact:

Tech. Notes:

Revisions:	Date	Author(s)	Phase	IR(s)	Description
	11/23/98	C. Hubbert	3	457	Removed references to Panorama View since Provider File is no longer used to obtain bedcounts in Panorama View. DHS Licensing and Certification File is used.
	5/26/98	L. Macklem	3	739	Rewrote as functional spec. Add PMEX-MAIN-REC-TYPE and MCP-P-BED-COUNT input fields.
	1/9/98	C. Hubbert	2	604	Removed logic specific to provider type 80, because those providers are now excluded from the PLF.

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1. Group1 Software Usage

1.1 Overview

The MIS/DSS utilizes products from Group1 software to validate addresses and derive latitude/longitude information for eligibility and provider records. Periodically data files and programs are updated by Group1; this process describes the efforts required to install these new items.

1.2 Purpose

The purpose of this process is to establish a reference that can be utilized for installation each time new versions of Group1 data files and programs are released.

1.3 Scope

This process applies only to the Group1 software used in the Mainframe conversion process.

1.4 Responsibility and Enforcement

The author of the policy/process is responsible for the initial creation and updating of this document. The Development Manager will be responsible to ensure that this process is followed each time Group1 data file and program updates are released.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

Using this process requires development skills and knowledge of the MIS/DSS conversion cycle.

1.7 Entry Criteria

This process is entered whenever new Group1 data files or programs are received.

1.8 Procedure Steps

1.8.1 Data File Replacement

Group1 zip code and locational data files remain effective for a 90-day period. At the end of this time period, a code is read by the Group 1 software from the data file causing a program abend to

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occur if the data is too old. The data files used are the Name/Address master and the GeoGraphic Coding Plus database.

1.8.1.1 Process to install

Group1 provides Job Control Language (JCL) that deletes older versions of these files and unloads and installs the newer versions. The JCL must be modified to alter the names of the two files to match the account naming conventions. Once all names are properly recorded, the JCL is executed. This results in the actual creation of the two physical data files that are then available for use in the Group1 Code1 and Geo-Code programs.

1.8.2 Program Updates for Code1 and Geo-Code

There are two Group1 programs used by the MIS/DSS – Code1 (Version 2.2) and Geo-Code (Version 3.3). Each of these programs utilize copybooks of MIS/DSS record layouts (e.g., Provider and Eligibility) as well as internal copybooks utilized and created specifically by Group1 for either of the two programs. In the event that a MIS/DSS record layout is changed (e.g., new field added), a recompilation of each of the two programs is required as well as a modification to the execution JCL to indicate the new record length to the Group1 Software. In the event of Code1 or Geo-Code copybook changes, recompilation is required as well as investigation of the cause (i.e., new functionality impact to MIS/DSS programs). All programs are received as loadable modules from Group1 and are not modified by MEDSTAT. If a new version of the program is received, MEDSTAT must migrate and promote the program and recompile with all applicable copybooks. Section 1.10 below denotes the MIS/DSS copybooks and jobs related to the Group1 software.

1.9 Exit Criteria

A successful completion of this process will be recognized by a satisfactorily completion of the validation tests executed to measure the impact of this change.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

MEDSTAT production location for Group1 executable JCL
HM.PMED.G1GCM.V3R30.JCLLIB (Geo-Code) or
HM.PMED.G1C1.V2R20.JCLLIB (Code 1)

1.10.1 Group1 Copybooks:

P9IN - LINKAGE SECTION FOR GROUP1 C1MATCHL INPUT

P9OUT - LINKAGE SECTION FOR GROUP1 C1MATCHL OUTPUT

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P9AUDIT - LINKAGE SECTION FOR GROUP1 C1MATCHL AUDIT
 CSPRM - LINKAGE SECTION FOR GROUP1 C1CTYLKP
 GCIPARM - LINKAGE SECTION FOR GROUP1 GCP10 INPUT
 GCOPARM - LINKAGE SECTION FOR GROUP1 GCP10 OUTPUT
 GCAPARM - LINKAGE SECTION FOR GROUP1 GCP10 AUDIT

1.10.2 MIS/DSS MEDSTAT Custom CopyBooks

CRVPMEX - PROV-MASTER-EXTRACT-RECORD Input
 CRVMCPC - MANAGED-CARE-PGM-PROVIDER Input
 CRPINPT1 – Eligibility Input

1.10.3 MIS/DSS Source

MIS/DSS Program
 MDU001 – Geo-Code Utility Program

1.10.4 MIS/DSS Subroutines

CSBEROR - SUBROUTINE TO LOG ERRORS
 C1MATCHL - SUBROUTINE TO ANALYZE AND MATCH ADDRESSES
 C1CTYLKP - SUBROUTINE TO STANDARDIZE CITY STATE FOR ZIP
 GCP10 - SUBROUTINE TO GET LATITUDE AND LONGITUDE

1.10.5 MIS/DSS Procs

HMDE0310 Eligibility Geo-Coding
 HMDV0700 Provider Geo-Coding

1.11 Reference Material

N/A.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/24/00	John Mulcahy	Policy/Process Established

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1. Library Structure & Migration

1.1 Overview

This policy organizes the decisions and requirements regarding library structure and application object migration between the development, migration, user acceptance test, and production environments for The MIS/DSS. It contains the definition of the library structure and the process for moving objects between the environments.

The Medi-Cal project presents a few unique challenges in creating appropriate library structures. The requirements for maintaining multiple versions of source code directly impact some decisions made about the migration process. The combination of custom code and DataScan product code further enhance these challenges.

1.2 Purpose

The library structure and migration policy was created to set standards in the way the project team manages environments and application objects. The standards exist to direct the staff and teams efficiently.

1.3 Scope

Any project team member responsible for migrating objects on the IBM mainframe environment will use this document. This is the only platform where application code is being customized for the project. All other platforms are using product code only.

1.4 General Considerations

The Medi-Cal MIS/DSS is being implemented using a phased approach. Each phase, The MEDSTAT Group builds at least two test databases prior to building the 30-month production database version within a phase. This policy has been written to accommodate this phased approach.

1.5 Skill Requirements

Individuals involved in the execution of this process must be knowledgeable in working in a IBM mainframe environment. For example, individuals must be familiar with using the TSO utilities to move objects to different libraries, and possess a working understanding of PDS and library structures.

1.6 Entry Criteria

This process is entered any time an object needs to be stored and migrated.

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1.7 Procedure Steps

The library structure has been developed to segment environments based on the requirements for each category. There are four categories of libraries to support project activities:

- Development – This area is qualified by “TMED” in the second level of the dataset name
- Testing & User Acceptance Testing(UAT) – This area is qualified by “PMED.Pxx.VxRxx” in the second, third, and fourth levels of the dataset name where:
Pxx = Phase and database version number
Vx = Version of DataScan being used in the environmnet
Rxx = Release number of DataScan being used in the environment
- Production – This area is qualified by “PMED” in the second level of the dataset name but does not contain the same qualifiers in the third and fourth position as in the test environments.

The following table defines the dataset inventory and high level qualifier for each environment.

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HLQ	Environment	Phase	DS Version	Library	Description
HM					High level qualifier assigned by HHSDC
	TMED				Development Environment
	MIGR				Migration Environment
	PMED				Production & Pre-Production Environment
		Pxx			Version number of the phase being processed (i.e., P25, P251, P31, P32, etc.) This qualifier is not used in Production (production will be HM.PMED.PROD.library – the phase and DS version are removed).
			VxRxx		Version number of the DataScan release being used (i.e., V3R20, V4R00, V4R01) This qualifier is also not used in Production (see note above for Pxx).
			PROD		Identifies Production libraries
		-----	-----	-----	Development Area -----
				SOURCE	Promoted from Development
				SCRIPTS	Promoted from Development
				COPYLIB	Promoted from Development
				CNVRTMAP	Promoted from Development
				CNVRTTBL	Promoted from Development
		-----	-----	-----	Execution -----
				PRODJCL	Execution JCL (Core and Custom)
				PROCLIB	Execution Procs (Core and Custom)
				CNTL	Execution Control Cards (Core and custom)
		-----	-----	-----	Utility Tools -----
				BINDCTL	Promoted from Development & Altered (members are re-set to point to the appropriate database version).
				COMPJCL	Utility procs for Promotes, Compiles and Library Maintenance
		-----	-----	-----	Created From Compiles -----
				DBRM	Created from Pre-Compile
				LIST	Pre-Compile Listing output
				ZCOB2LST	Compile Listing output
				LINKLIST	Link-Edit Listing output
				LOADLIB	Created from Link
		-----	-----	-----	IBM Area -----
				DCLGEN	Maintained in Pre-Production and Production only (DB2 is the Owner)
				DDL	Maintained in Pre-Production and Production only (DB2 is the Owner)

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The Development Team is responsible for defining and maintaining the Development library structure. The Operations Team will not participate in the administration of the development library structure. Operations will maintain the other (including Production) environment definitions. Following are the security guidelines for each library grouping.

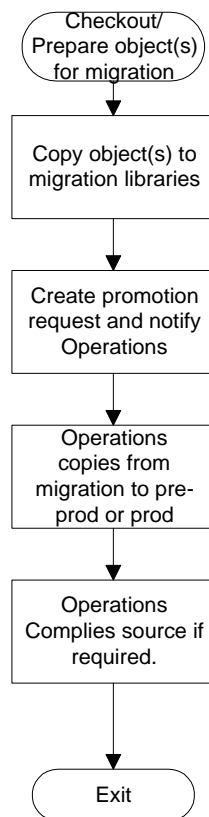
1. Developer's have authority on HM.TMED.* and HM.MIGR.* with Read/Write Access.
2. Operations has authority on HM.* with Read/Write/Delete/Create.

Creation of all library structures with the exception of Development is the Operation Team's responsibility. The pre-production and migration library structures are created at the same time. Usually these environments are created before the first request for a development promotion is received from Development. The creation of libraries is controlled by the CREATE member in the HM.PMED.PROD.COMPJCL dataset. Operations submits this job to initialize all datasets in the library.

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1.7.1 Development Migration Process

Development Migration Process



The development migration process consists of two categories.

1. Version migration – When Development has completed unit testing all modules for a build or update version, they will migrate all source objects into the migration libraries.
2. Fix migration – When Development generates a fix or change for an IR, it will sometimes need to be applied to testing or production libraries. This type of migration is referred to as a fix migration.

Development must prepare a promotion request. This is an itemized list of components that participate in the migration. The promotion request is provided to the Operations Team to notify them that migration should commence on the date specified on the promotion request. The

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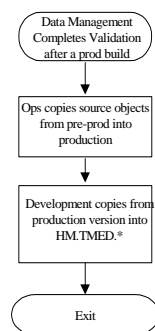
Operations Team will then migrate all components from the HM.MIGR.* into the HM.PMED.* libraries. The Operations Team will only migrate those components that are identified on the promotion request supplied by the requestor. Extraneous objects are left in the migration libraries.

In the case of fix migrations, the Operations Team will follow the same procedure as listed above for a version migration.

1.7.2 Production Migration Process

The production migration process is used by the Operations Team to copy objects from the Pre-Prod libraries into the production libraries. The production system is built out of the Pre-Prod libraries. This occurs because of the nature of the build and update processes. The build and update processes occur over a several day period. The processes are run during business hours while other users are in the DataScan system. Because of this, the production library must remain in tact without changes until the very later stages of the build or update. This is why the

Production Migration Process



build and update process for production is run out of the Pre-Prod environment. Only after the new production system is validated by Data Management does the production migration occur. The production migration process is outlined in the diagram to the left. When Data Management has announced completion of the validation process, the Operations Team will migrate the current environment objects to the new production environment.

1.7.3 Operation's Compilation Tools

The Operation's Compilation Tools are JCL used to simplify the compile process. There are two basic JCL templates used to compile source in the production environment. The JCL is located in the HM.PMED.Pxx.Vxxx.SCRIPTS for pre-production or HM.PMED.PROD.SCRIPTS for production. The above JCL is set up with symbolics that are environment – and phase – specific.

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Listed below are the JCL templates used to compile source in the production environment.

Compiles

There are two types of compiles, DB2 and Non-DB2. A Return Codes of zero is always expected with the exception of the Grant Step. The Grant Step will complete with a Return Code of 4.

JCL Location: HM.PMED.PXX.VXXX.SCRIPTS - for pre-prod version JCL
HM.PMED.PROD.SCRIPTS - for production version JCL

1.8 Exit Criteria

To successfully exit from a development version of fix migration, the promotion and compilation instructions given by development must be completed in totality. To successfully exit from a production migration, the entire production database version must be migrated into the production environment.

1.8.1 Exit Exception Criteria

Exit exceptions for this process must be handled on a case by case basis. When an exception occurs to this process, it will most likely be needed because a requirement has changed or was originally misunderstood. In the event an exception is needed, this process description will most likely need to be updated to include the circumstances surrounding the exception.

1.8.2 Exit Exception Handling

Because the exceptions are handled on a case by case basis, the Operations and Development Managers will need to be involved in making decisions about the part of this process description for which they are responsible.

1.9 Forms and Subject Examples

N/A

1.10 Reference Material

N/A

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1.11 Policy History

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4/25/00	Natalie Wyatt	Modified Style Template
11/1/98	Ron Carr, John Mulcahy	Implemented

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1 Map Maintenance

1.1 Overview

Maps are used in the Claims, Eligibility, Provider, Capitation, Drug, and MCPF Convert Programs to map one value to another or to check for valid values. Maps are also used to convert a Medi-Cal value to a MEDSTAT value. Maps are maintained on the LAN for convenience and print quality. A Map Directory can be found in Appendix 1.15.1. A list of fields that affect maps can be found in Appendix 1.15.2. An example of a map can be found in Appendix 1.15.3. An IR Impact Checklist can be found in Appendix 1.15.4.

Occasionally new values are added, old values deleted, or a value should be mapped differently. Normally, a map change is initiated by an OIL from the State. When MEDSTAT receives an OIL, the table owner opens an Investigative Request (IR), with a task for the Map Manager to make the necessary map changes. When the map changes are made, the new version is uploaded to the mainframe. The developer runs a compare report for the Map Manager to review and confirm the correct changes were made.

1.2 Purpose

The purpose of this document is to create a documentation standard for the process of adding, changing, or deleting items from maps.

1.3 Scope

This document applies to the addition, modification, or deletion of items from maps by a Data Manager.

1.4 Responsibility and Enforcement

The Data Management team is responsible for adding, changing, or deleting items from maps.

1.5 Policy Statement

The objective of this procedure is to ensure all map changes are correctly implemented.

1.6 Special Considerations

The SVCCPT map assigns a MEDSTAT Service Type (SVCTYP) from CPT, HCPCS, and Local Procedure Codes. MEDSTAT updates the CPT and HCPCS codes annually, but this map must be manually updated for Medi-Cal because of the Local Codes on the map and because Medi-Cal uses more specific Service Types than MEDSTAT assigns. Specifically, when MEDSTAT assigns Service Type values 80 through 83, Medi-Cal reassigns these to Service Types 170 to 176. When MEDSTAT updates these codes annually, a copy should be given to the State for review. The State will indicate which codes should have a more specific Service Type assigned and return to MEDSTAT. MEDSTAT will then update the SVCCPT map.

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1.7 Skill Requirements

The skills required to perform the Map Maintenance Process are:

- Basic knowledge of Windows File Management techniques
- Basic knowledge of Excel spreadsheets
- Familiar with the IR Log

1.8 Entry Criteria

When a map change is needed, the Data Manager initiating the change must enter a task in an IR and assign a task to the Map Manager to implement the change. The task should include the map to be changed and the exact change requested. The IR will indicate build or update which should include the map change. The Data Manager must also indicate the map(s) to be changed in the Configuration Management part of the IR.

1.9 Procedure Steps

The major activities of the process are described in detail.

1.9.1 Map Change is Initiated

Normally, an OIL is received from the State which initiates a map change, although that is not always the case. Some changes are initiated by MEDSTAT and approved by the State. The Data Manager responsible for the table which uses the map opens an IR stating the specific change and assigns a task to the Map Manager to implement the change. The Data Manager also indicates the map(s) to be changed in the Configuration Management part of the IR.

1.9.2 Map Manager Makes the Change

The Map Manager creates a folder on the LAN for each build or update in order to maintain the applicable versions of the maps for each build or update. The Map Manager must change the most recent version of the map. The maps are maintained on the LAN under a folder named 'Specifications' for the current Phase. For example, Phase 5 maps can be found in the folder:

W:\Ca_med\Datamgmt\Phase 5\Specifications\Maps\

There is a folder under 'Maps' for each build or update, which contains any maps changed for that build or update. The versions of any maps that did not change remain in the last build or update folder where they were changed. For example, for Phase 5 there will be a folder for each build or update, such as:

W:\Ca-med\Datamgmt\Phase 5\Specifications\Maps\P5.1 Changes

W:\Ca-med\Datamgmt\Phase 5\Specifications\Maps\P5.2 Changes

W:\Ca-med\Datamgmt\Phase 5\Specifications\Maps\P5.3 Changes

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W:\Ca-med\Datamgmt\Phase 5\Specifications\Maps\P5.3.1 Changes

W:\Ca-med\Datamgmt\Phase 5\Specifications\Maps\P5.3.2 Changes

Only maps changed or added for that build or update will be in each folder. When a map change is needed, the Map Manager must locate the most recent version of that map by starting with the most recent build or update folder and going backward. When the most recent version is located, the map should be copied into the new folder and then the changes made to that map. All changes are recorded in the Change Log at the top of each map, which include the IR number, the date, the Phase, the initials of the person making the change, and what the change was. The Map Manager marks the task as complete in the IR and assigns a task to a developer to upload the map to the mainframe.

1.9.3 Uploading the Map to the Mainframe

The developer uploads the map to the mainframe and runs compare reports for the Map Manager to review.

1.9.4 Compare Reports

The developer downloads the compare reports to the LAN, to the folder for that build or update. The compare folders are similar to the map folders. For example, the structure for Phase 5 would be as follows:

W:\Ca_med\Datamgmt\Phase 5\Specifications\Maps\P5.1 Compares

W:\Ca_med\Datamgmt\Phase 5\Specifications\Maps\P5.2 Compares

W:\Ca_med\Datamgmt\Phase 5\Specifications\Maps\P5.3 Compares

W:\Ca_med\Datamgmt\Phase 5\Specifications\Maps\P5.3.1 Compares

The Map Manager reviews the compare reports to ensure the changes (and only the changes) are itemized on the report. The Map Manager should review the Change Log in the map to determine what changes should be on the compare report. When a line on a map is changed, it will print on the compare report as a deletion of the old value and an insertion of the new value. Only changes recorded in the Change Log should be on the compare report. If any additional changes are noted, the Map Manager should consult the table owner or the developer. After the compare reports are reviewed, the Map Manager gives the go-ahead for the developer to promote the map into production.

1.10 Exit Criteria

After the map changes are made, the Map Manager marks the task as complete in the IR Log. The person initiating the addition/change/deletion must test it and document the results in the IR.

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1.11 Forms and Instructions

1.12 Subject Examples

1.13 Reference Material

1.14 Policy History

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5/9/00	Tina Poyner	Process Established
12/14/00	Tina Poyner	Added Appendix for list of fields that affect maps, added Configuration Management part of IR, added Special Considerations, added IR Impact Checklist Appendix.
1/23/01	Carrie Swanson	Updated the attachments to include the PMW specific fields and maps.

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1.15 Appendix

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1.15.1 Map Directory

Map Name	Fields on Map	PV	Convert	Description of Map
ADJCAP	ADJCAP & Description		Capitation	Capitation Adjustment Codes - used to validate the ADJCAP value and to assign the MEDSTAT ADJIND field. Also used to determine whether the MBRMOS and NETPAY fields are positive or negative values. When this map is updated, also update the Capitation Turnaround Report Checklist.
	ADJIND & Description			
ALIENCD	ALIENCD & Description		Eligibility	Alien / Eligibility Code - used to validate the ALIENCD being converted.
ALIENIND	ALIENIND & Description		Eligibility	Refuge / Alien Indicator - used to validate the ALIENIND being converted.
AMBPROC	PROC1		Claims	Ambulatory Procedure Codes - used to assign an ambulatory surgical grouping code based on the PROC1.
	AMPROC & Description	PV		
CDBFOLOC	Maintained on mainframe		Claims	List of FOLOG Numbers to be Reported on the Failed Operations Report for Claims
CDBFOLOD	Maintained on mainframe		Drug	List of FOLOG Numbers to be Reported on the Failed Operations Report for Drug
CDBFOLOE	Maintained on mainframe		Capitation	List of FOLOG Numbers to be Reported on the Failed Operations Report for Capitation
CDBFOLOF	Maintained on mainframe		Eligibility	List of FOLOG Numbers to be Reported on the Failed Operations Report for Eligibility
CDBFOLOM	Maintained on mainframe		MCPF	List of FOLOG Numbers to be Reported on the Failed Operations Report for MCPF Member Months
CDBFOLON	Maintained on mainframe		MCPF	List of FOLOG Numbers to be Reported on the Failed Operations Report for MCPF Financials
CDBFOLOO	Maintained on mainframe		MCPF	List of FOLOG Numbers to be Reported on the Failed Operations Report for MCPF Enrollment
CDBFOLOV	Maintained on mainframe		Provider	List of FOLOG Numbers to be Reported on the Failed Operations Report for Provider
Coverage Type	AIDCODE		PMW Build	Used to map Aid Category Code (AIDCODE) to the applicable PMW Coverage Types (found in the PMW Technical Reference Guide)
	Coverage Type			
DCHGBLNK	Blank Patient Status & Desc		Claims	Discharge Status - used to assign the MEDSTAT Discharge Status value from F35-PATIENT-STATUS
	MEDSTAT DSTATUS & Desc			
DCHGDDS	DDS Discharge Code & Desc		Claims	Discharge Status - used to assign the MEDSTAT Discharge Status value from F35-PATIENT-STATUS

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			DISCHARGE-CODE
	MEDSTAT DSTATUS & Desc		
DCHGDHS	DHS Discharge Code & Desc	Claims	Discharge Status - used to assign the MEDSTAT Discharge Status value from F35-DISCHARGE-CODE
	MEDSTAT DSTATUS & Desc		
DCHGLTC	LTC Patient Status & Desc	Claims	Discharge Status - used to assign the MEDSTAT Discharge Status value from F35-PATIENT-STATUS
	MEDSTAT DSTATUS & Desc		
DCHGU	U Patient Status & Desc	Claims	Discharge Status used to assign the MEDSTAT Discharge Status value from F35-PATIENT-STATUS for Short Doyle and Inpatient Hospital Claims
	MEDSTAT DSTATUS & Desc		
DNTLORIG	HCPCS & Description	Claims	Original 3-Digit Denti-Cal codes converted to HCPCS in the PROC1 field
	Denti-Cal Code		
ELIGCAT	AIDCODE & Description	PV	Capitation
	ELIGCAT & Description	Claims, Drug, Eligibility	Used to obtain the value for ELIGCAT based on AIDCODE. Drop records where CAP-AID-CODE is not on this map.
		Splitter	Used to validate the AIDCODE being converted and to assign the appropriate ELIGCAT value based on the AIDCODE
			Used to validate F35-BID-AID-CODE when the F35-BID-CNTY is to be included for all FFp services.
ELIGCNTY	ELIGCNTY & Description	PV	Capitation
		Eligibility	Drop records where CAP-PHP-COUNTY is not on this map.
		Splitter	Beneficiary County - used to validate the ELIGCNTY being converted.
			Used to validate F35-BID-CNTY.
ETHNIC	ETHNCTY & Description	PV	Eligibility
			Ethnicity codes - used to validate that a defined Ethnic Code is being converted.
FLGAPRCA	OPR#		Capitation
	Invalid Value		List of Approved 'Invalid' Values for Capitation
FLGAPRCL	OPR#		Claims
	Invalid Value		List of Approved 'Invalid' Values for Claims
FLGAPRDR	OPR#		Drug
	Invalid Value		List of Approved 'Invalid' Values for Drug
FLGAPREL	OPR#		Eligibility
	Invalid Value		List of Approved 'Invalid' Values for Eligibility
FLGAPREN	OPR#		MCPF
			List of Approved 'Invalid' Values for MCPF Enrollment

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	Invalid Value			
FLGAPRFI	OPR#		MCPF	List of Approved 'Invalid' Values for MCPF Financials
	Invalid Value			
FLGAPRME	OPR#		MCPF	List of Approved 'Invalid' Values for MCPF Member Months
	Invalid Value			
FLGAPRPR	OPR#		Provider	List of Approved 'Invalid' Values for Provider
	Invalid Value			
FLGKEYCA	OPR#		Capitation	List of FOLOG Numbers to be Reported on the Unexpected Values Report for Capitation
FLGKEYCL	OPR#		Claims	List of FOLOG Numbers to be Reported on the Unexpected Values Report for Claims
FLGKEYDR	OPR#		Drug	List of FOLOG Numbers to be Reported on the Unexpected Values Report for Drug
FLGKEYEL	OPR#		Eligibility	List of FOLOG Numbers to be Reported on the Unexpected Values Report for Eligibility
FLGKEYEN	OPR#		MCPF	List of FOLOG Numbers to be Reported on the Unexpected Values Report for MCPF Enrollment
FLGKEYFI	OPR#		MCPF	List of FOLOG Numbers to be Reported on the Unexpected Values Report for MCPF Financials
FLGKEYME	OPR#		MCPF	List of FOLOG Numbers to be Reported on the Unexpected Values Report for MCPF Member Months
FLGKEYPR	OPR#		Provider	List of FOLOG Numbers to be Reported on the Unexpected Values Report for Provider
HFPA			Claims, Drug, Provider	Health Facility Planning Area [Electronic Copy ONLY] - used to determine the HFPA number from converted PROVZIP.
LANGUAGE	LANGUAGE & Description	PV	Eligibility	Language codes - used to validate that a defined Language Code is being converted.
MCALAGE	Age value	PV	Claims, Drug, Eligibility	Medical Age Groups - used to map the AGE of the eligible to Medi-Cal defined Age Groups.
	Grouping & Description			
NETPROD	From Effective Date		Capitation	Used to validate PHPCODE and assign a NETWORK value from PHPCODE.
	Thru Effective Date		Claims, Drug	Used to validate that a defined PHPCODE is being converted.
	PHPCODE & Description		Eligibility	Used to validate MEDPHP and assign NETWORK, PRODUCT, and DENTAL.
	NETWORK & Description	PV	MCPF	If PLANMCF is alphanumeric, NETPROD is used to validate PLANMCF. If PLANMCF is numeric, NETPROD is used to reassign PLANMCF with its appropriate Corporate Parent Code.
	PRODUCT & Description	PV		

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	DENTAL & Description			
	PLANMCF & Description			
PLACACOM	F35-ACCOM-CODE & Desc		Claims	Used to assign the MEDSTAT Place of Service from F35-MIO-POS and F35-ORIG-POS.
	MEDSTAT PLACE & Desc			
PLACDHS	DHS Code & Description		Claims	Used to assign the MEDSTAT Place of Service from F35-MIO-POS and F35-ORIG-POS.
	MEDSTAT PLACE & Desc			
PLACDRUG	DHS Code & Description		Drug	Used to assign the MEDSTAT Place of Service from DHS Place of Service.
	MEDSTAT PLACE & Desc			
PLACFI	FI-POS Code & Description		Claims	Used to assign the MEDSTAT Place of Service from F35-MIO-POS and F35-ORIG-POS.
	MEDSTAT PLACE & Desc			
PLACHCFA	HCFA Code & Description		Claims	Used to assign the MEDSTAT Place of Service from F35-MIO-POS and F35-ORIG-POS.
	MEDSTAT PLACE & Desc			
PLANTYP	PHPCODE		Eligibility	Used to assign PLANTYP from a valid MEDPHP.
	Plan Type			
	Effective Date			
	Discontinued Date			
PROVCNTY	PROVCNTY & Description	PV	Provider	Used to validate the Provider County code.
PROVSPEC	PROVSPEC & Description	PV	Provider & Claims Convert	Used to validate the Provider Specialty code.
	Provider Source			
PROVST	State Abbreviation & Desc		Provider	Used to validate the Provider State code.
PRTYP	Medi-Cal Vendor Code & Desc		Claims	Assigns a MEDSTAT Provider Type from a Medi-Cal Vendor Code (NOT PROVTPs 22 or 26)
	MEDSTAT PROVTP & Desc			
PRTYP22	Medi-Cal Prov Spec & Desc		Claims	Assigns a MEDSTAT Provider Type from a Medi-Cal Provider Specialty(PROVTYPs 22 & 26)
	MEDSTAT PROVTP & Desc			
RECODE	PROC1 - Orig Code		PMW	PMW Recode Map
	Recode - Standard CPT			
	Description			
RESCNTY	RESCNTY & Description		Eligibility	Used to validate the RESCNTY being converted.
RVUADJ	PROVZIP		Claims	Adjusted RVU Factors [Electronic Copy ONLY]

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	Adjusted Work Factor			This map is searched by the PROVZIP code; and the Adjusted Work Factor (WORKADJ), the Adjusted Practice Expense Factor (PEADJ), and the Adjusted Malpractice Factor are used to calculate the RVCADJ.
	Adj Practice Expense Factor			
	Adjusted Malpractice Factor			
RVUHCFA	PROC1		Claims	HCFA RVU Assignment Table [Electronic Copy ONLY]
	PROCMOD			This map is searched with PROC1/PROCMOD and the Work RVUs and Practice Expense RVUs and Malpractices RVUs from the map are used in the calculation of RVUTOT.
	WORKRVU			
	PERVU - Office			
	PERVU - Facility			
	MPRVU - Malpractice			
RVUMODX	PROCMOD & Description		Claims	Modifiers that identify services to be excluded from the RVU Assignment Logic
RVUPLACE	PLACE & Description		Claims	Facility Place Codes defined by HCFA - used to define facilities so that the HCFA site-of-service definition can be applied during the RVU Assignment process.
RVUSURGX	PROC1 & Description		Claims	CPT Surgical Procedures Codes to be excluded from the RVU Assignment Logic
SVCCPT	PROC1 (5 digit only)		Claims	Used to assign the MEDSTAT Service Type fro CPT/HCPCS/Local codes when PROC1 is 5-bytes.
	MEDSTAT SVCTYP & Desc			
SVCCPT4	PROC1 (4 digit only)		Claims	Used to assign the MEDSTAT Service Type for CPT/HCPCS/Local codes when PROC1 is only 4-bytes.
	MEDSTAT SVCTYP & Desc			
SVCLAWAV	Accommodation Code & Desc		Claims	Used to assign the MEDSTAT Service Type from an LA Waiver Code.
	MEDSTAT SVCTYP & Desc			
SVCLTC	Accommodation Code & Desc		Claims	Used to assign the MEDSTAT Service Type for Long Term Care services.
	MEDSTAT SVCTYP & Desc			
SVCMODE	Accom Code (SDMH) & Desc		Claims	Used to assign the MEDSTAT Service Type for Short-Doyle Inpatient services.
	MEDSTAT SVCTYP & Desc			
SVCST	Accom Code (DDS) & Desc		Claims	Used to assign the MEDSTAT Service Type for DDS services.
	MEDSTAT SVCTYP & Desc			
SVCUB92	Accom Code & Description		Claims	Used to assign the MEDSTAT Service Type using the UB92 field.
	MEDSTAT SVCTYP & Desc			

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VENDORCD	Medi-Cal Provider Type & Desc	PV	Claims	Used to validate that a defined Vendor Code value is being converted.
	Accom Code 1		Provider	Used to convert PROVTYPE into VENDORCD.
	Accom Code 2			
	Medi-Cal Vendor Code & Desc			

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1.15.2 Fields That Affect Maps

PC Field Name	Description	Map to Update	Other Fields on Map	Used in Convert	Affects PV
ADJCAP	Cap Adjustment Indicator	ADJCAP	ADJIND	Capitation	
AGE	Age of Eligible	MCALAGE	MCALAGE	Claims, Drug, Elig	
AIDCODE	Aid Code of Eligible	ELIGCAT	ELIGCAT	Cap, Claims, Drug, Elig, Splitter	
		Coverage Type	Coverage Type (<i>PMW specific</i>)	PMW Build	
ALIENCD	Alien Eligibility Code	ALIENCD		Eligibility	
ALIENIND	Refugee/Alien Indicator	ALIENIND		Eligibility	
AMBPROC	Ambulatory Procedure Group	AMBPROC	PROC1	Claims	Yes
DENTAL	Dental Plan Code	NETPROD	NETWORK, PHPCODE, PLANMCF, PRODUCT	Cap, Claims, Drug, Elig, MCPF	
		PLANTYP	PLANTYP	Eligibility	
DNTLORIG	Original 3-digit Dental Code	DNTLORIG	HCPCS	Claims	
DSTATUS	Discharge Status	DCHGBLNK	F35-PATIENT-STATUS	Claims	
		DCHGDDS	F35-DISCHARGE-CODE	Claims	
		DCHGDHS	F35-DISCHARGE-CODE	Claims	
		DCHGLTC	F35-PATIENT-STATUS	Claims	
		DCHGU	F35-PATIENT-STATUS	Claims	
ELIGCAT	Category of Eligible	ELIGCAT	AIDCODE	Cap, Claims, Drug, Elig, Splitter	Yes
ELIGCNTY	County of Eligible	ELIGCNTY		Cap, Elig, Splitter	Yes
ETHNCTY	Eligible Ethnicity	ETHNIC		Eligibility	Yes
LANGUAGE	Language of Eligible	LANGUAGE		Eligibility	Yes
LTC	Long Term Care Plan	NETPROD	NETWORK, PHPCODE, PLANMCF, PRODUCT	Cap, Claims, Drug, Elig, MCPF	
		PLANTYP	PLANTYP	Eligibility	
MCALAGE	Age Group (MIS)	MCALAGE	AGE	Claims, Drug, Elig	Yes
MEDPHP	Medical Plan Code	NETPROD	NETWORK, PHPCODE, PLANMCF, PRODUCT	Cap, Claims, Drug, Elig, MCPF	
		PLANTYP	PLANTYP	Eligibility	
MHP	Mental Health Plan	NETPROD	NETWORK, PHPCODE, PLANMCF, PRODUCT	Cap, Claims, Drug, Elig, MCPF	
		PLANTYP	PLANTYP	Eligibility	

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PC Field Name	Description	Map to Update	Other Fields on Map	Used in Convert	Affects PV
NETWORK	Medical Network Plan Code	NETPROD	PHPCODE, PLANMCF, PRODUCT	Cap, Claims, Drug, Elig, MCPF	Yes
PHPCODE	Prepaid Health Plan Code	NETPROD	NETWORK, PLANMCF, PRODUCT	Cap, Claims, Drug, Elig, MCPF	
		PLANTYP		Eligibility	
PLACE	Place of Service Code	PLACACOM		Claims	
		PLACDHS		Claims	
		PLACDRUG		Claims	
		PLACFI		Claims	
		PLACHCFA		Claims	
PLANMCF	PHP Corporate Parent Code	NETPROD	NETWORK, PHPCODE, PRODUCT	Cap, Claims, Drug, Elig, MCPF	
PROC1	Procedure Code	AMBPROC	AMBPROC	Claims	
		DNTLORIG	DNTLORIG	Claims	
		RECODE	<i>Mapped to standard CPT</i>	PMW Build	
		SVCCPT	SVCTYP	Claims	
		SVCCPT4	SVCTYP	Claims	
PRODUCT	Plan Model Type	NETPROD	NETWORK, PHPCODE, PLANMCF	Cap, Claims, Drug, Elig, MCPF	Yes
PROVCNTY	County of Billing Provider	PROVCNTY		Provider	Yes
PROVSPEC	Specialty of Provider	PROVSPEC		Claims, Provider	Yes
PROVST	State of Provider	PROVST		Provider	
PROVTYP	Type of Provider	PRTYP	Medi-Cal Vendor Code	Claims	
		PRTYP22	Medi-Cal Provider Specialty	Claims	
RESCNTY	County of Residence	RESCNTY		Eligibility	
SVCTYP	Service Type	SVCCPT	PROC1	Claims	
		SVCCPT4	PROC1	Claims	
		SVCLASWAV		Claims	
		SVCLTC		Claims	
		SVCMODE		Claims	
		SVCST		Claims	
		SVCUB92		Claims	
VENDORCD (Medi-Cal)	Vendor Code	PRTYP	PROVTYP	Claims	Yes

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PC Field Name	Description	Map to Update	Other Fields on Map	Used in Convert	Affects PV
		VENDORCD	Medi-Cal Provider Type	Claims, Provider	

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1.15.3 Map Example – VENDORCD

Medi-Cal Prov Typ Code	Provider Type Description (RF-35-File)	Accom Code 1	Accom Code 2	Medi-Cal Vendor Code	Vendor Code Description (RF-35-File)
001	Adult Day Hlth Care Cntrs	0000	9999	01	Adult Day Hlth Care Cntrs
002	Assist Device and Sick Rm Supp	0000	9999	40	Othr Providers (non-prof)
003	Audiologists	0000	9999	37	Audiologists
004	Blood Banks	0000	9999	41	Blood Banks
005	Certified Nurse Midwife	0000	9999	05	Certified Nurse Midwife
006	Chiropractors	0000	9999	30	Chiropractors
007	Certified Pediatric/Family NP	0000	9999	08	Certified Family NP
008	Christian Science Practitioners	0000	9999	40	Othr Providers (non-prof)
009	Clinical Laboratories	0000	9999	24	Physician Part Lab Srvc
010	Group Cert. Pediatric/Family NP	0000	9999	08	Certified Family NP
011	Fabricating Optical Laboratory	0000	9999	11	Fabricating Optical Labs
012	Dispensing Opticians	0000	9999	29	Dispensing Opticians
013	Hearing Aid Dispensers	0000	9999	45	Hearing Aid Dispenser
014	Home Health Agencies	0000	9999	44	Home Health Agencies
015	Community Hosp Outpatient	0000	9999	62	Hosp: Comm Outpatient
016	Community Hosp Inpatient	0000	9999	60	Hosp: Comm Acute I/P
017	Long Term Care	0000	0040	80	Nursing Facility (SNF)
017	Long Term Care	0041	0069	47	Intermediate Care Fac
017	Long Term Care	0070	9999	80	Nursing Facility (SNF)
018	Nurse Anesthetists	0000	9999	13	Nurse Anesthetists
019	Occupational Therapists	0000	9999	35	Occupational Therapists
020	Optometrists	0000	9999	28	Optometrists
021	Orthotists	0000	9999	39	Orthotists
022	Physicians Group	0000	9999	22	Physicians Group
023	Optometric Group	0000	9999	12	Optometric Group Practice
024	Pharmacies	0000	9999	26	Pharmacies
025	Physical Therapists	0000	9999	34	Physical Therapists
026	Physicians	0000	9999	20	Physicians (MD or DO)
027	Podiatrists	0000	9999	32	Podiatrists

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Medi-Cal Prov Typ Code	Provider Type Description (RF-35-File)	Accom Code 1	Accom Code 2	Medi-Cal Vendor Code	Vendor Code Description (RF-35-File)
028	Portable X-ray Laboratory	0000	9999	19	Portable X-ray Laboratory
029	Prosthetists	0000	9999	38	Prosthetists
030	Ground Medical Transportation	0000	9999	42	Medically Required Trans
031	Psychologists	0000	9999	31	Psychologists
032	Certified Acupuncturists	0000	9999	33	Certified Acupuncturists
033	Genetic Disease Testing	0000	9999	04	Genetic Disease Testing
034	Medicare Crossover LCSW Provider Only	0000	9999	02	Medicare Crossover LCSW Provider Only
035	RHC / FQHC	0000	9999	77	Rural Health Clinics/FQHCs
036	HCB - Cert Home Health Agency	0000	9999	71	Home/Comm Based Service Waivers
037	Speech Therapists	0000	9999	36	Speech Therapists
038	Air Ambulance Transportation Svcs	0000	9999	42	Medically Required Trans
039	Certified Hospice Service	0000	9999	06	Certified Hospice Service
040	Free Clinics	0000	9999	75	Organized Outpat Clinics
041	Community Clinics	0000	9999	75	Organized Outpat Clinics
042	Chronic Dialysis Clinics	0000	9999	78	Comm Hemodialysis Center
043	Multispecialty Clinics	0000	9999	75	Organized Outpat Clinics
044	Surgical Clinics	0000	9999	72	Surgicenter
045	Exempt from Licensure Clinics	0000	9999	75	Organized Outpat Clinics
046	Rehabilitation Clinics	0000	9999	79	Independent Rehab
047	Employer / Employee Clinics	0000	9999	75	Organized Outpat Clinics
048	County Clinics not assoc w/hosp	0000	9999	75	Organized Outpat Clinics
049	Birthing Centers - Prim Care Clinic	0000	9999	49	Birthing Center
050	Clinic - otherwise undesignated	0000	9999	75	Organized Outpat Clinics
051	Outpatient Heroin Detox	0000	9999	91	Outpat Heroin Detox
052	Alternative Birth Centers	0000	9999	49	Birthing Center
053	Breast Cancer Early Det Pgm	0000	9999	53	Breast Cancer Early Detection Program
054	Expanded Access to Prim Care	0000	9999	14	Expanded Access to Primary Care
055	Local Education Agency	0000	9999	55	Local Education Agency
056	Respiratory Care Practitioner	0000	9999	09	Respiratory Care Practitioner
057	EPSDT Suppl Services Provider	0000	9999	82	EPSDT Suppl Services
058	Health Access Program	0000	9999	75	Organized Outpat Clinics

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Medi-Cal Prov Typ Code	Provider Type Description (RF-35-File)	Accom Code 1	Accom Code 2	Medi-Cal Vendor Code	Vendor Code Description (RF-35-File)
060	County Hospital Inpatient	0000	9999	50	Hosp: County Acute I/P
061	County Hospital Outpatient	0000	9999	52	Hosp: County Outpatient
062	Group Respiratory Care Practitioner	0000	9999	09	Respiratory Care Practitioner
063	County Hospital LTC	0000	9999	80	Nursing Facility (SNF)
065	Pediatric Subacute Care - LTC	0000	0082	80	Nursing Facility (SNF)
065	Pediatric Subacute Care - LTC	0083	0084	83	Pediatric Subacute Rehab/Weaning
065	Pediatric Subacute Care - LTC	0085	0096	80	Nursing Facility (SNF)
065	Pediatric Subacute Care - LTC	0097	0098	83	Pediatric Subacute Rehab/Weaning
065	Pediatric Subacute Care - LTC	0099	9999	80	Nursing Facility (SNF)
070	Acute Psych Hosp	0000	9999	70	Acute Psych Hosp
072	Mental Health Inpatient	0000	9999	63	Mental Health Inpatient
073	AIDS Waiver Provider	0000	9999	73	AIDS Waiver Services
074	Multi-Purpose Senior Services Pgm	0000	9999	81	Multipurpose Senior Svc Pgm (MPSSP) Waiver
075	Tribal Health Plan	0000	9999	77	Rural Health Clinics/FQHCs
080	CCS / GHPP	0000	9999	03	CCS / GHPP
081	CCS / GHPP	0000	9999	03	CCS / GHPP
090	Out-of-State	0000	9999	90	Others and Out-of-State
098	Miscellaneous	0000	9999	40	Othr Providers (non-prof)
099	Dentists	0000	9999	27	Dentists
XXX	N/A	0000	9999	07	Certified Pediatric NP
XXX	N/A	0000	9999	21	Ophthalmologist
XXX	N/A	0000	9999	23	Lay Owned Lab Services(RHF)
XXX	N/A	0000	9999	51	Hosp: County Extend Care
XXX	N/A	0000	9999	56	Hosp: State Dev Disabled
XXX	N/A	0000	9999	57	Hosp: State Mentally Dis
XXX	N/A	0000	9999	58	Hosp: County Hemodialysis
XXX	N/A	0000	9999	59	Hosp: County Rehab
XXX	N/A	0000	9999	61	Hosp: Comm Extend Care
XXX	N/A	0000	9999	64	Hosp: Comm SDMH
XXX	N/A	0000	9999	68	Hosp: Comm Renal Dialysis
XXX	N/A	0000	9999	69	Hosp: Comm Rehab

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Medi-Cal Prov Typ Code	Provider Type Description (RF-35-File)	Accom Code 1	Accom Code 2	Medi-Cal Vendor Code	Vendor Code Description (RF-35-File)
XXX	N/A	0000	9999	74	Short Doyle Comm MH
XXX	N/A	0000	9999	76	DDS Waiver Services
XXX	N/A	0000	9999	89	Personal Care Services, DDS
XXX	N/A	0000	9999	92	Medi-Cal Targeted Case Mgmt
XXX	N/A	0000	9999	93	DDS Targeted Case Mgmt
XXX	N/A	0000	9999	94	CHDP Provider
XXX	N/A	0000	9999	95	SD Comm MH Rehab

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1.15.4 IR Impact Checklist

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LEGEND: **DM** – Data Manager **DMA** – Data Manager Assistant **Dev** – Developer **DBA** – Data Base Administrator **PV DM** -
Panorama DM
Y – Change needed **N** – No changes needed **?** – Changes may be needed depending on specific update

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1. Map Upload

1.1 Overview

The MIS/DSS customized conversion process utilizes many tables to validate the value or domain of input fields. These tables are maintained by the MEDSTAT data management team in Excel spreadsheets. These spreadsheets ultimately must be transferred to the mainframe environment in order to actually be used during the conversion process.

1.2 Purpose

This process describes the process required to transfer copies of the PC maps (tables) to the mainframe environment.

1.3 Scope

This process relates specifically to the set of maps that are maintained at Medi-Cal and used in the convert process; it does not cover the replacement of external reference tables (e.g., Redbook, CPT master, etc.).

1.4 Responsibility and Enforcement

The Data Management Team Lead is responsible for the content of the individual maps, the Development Team Lead is responsible for ensuring the timely and accurate upload of the PC maps using this process.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

An employee utilizing this process must be an experienced development staff member. This developer should be familiar with data transfer methods, comparison utilities, and the storage methods used for the DataScan maps on the project.

1.7 Entry Criteria

This process is entered any time a map must be uploaded from the PC to the mainframe due to additions/modifications.

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1.8 Procedure Steps

In general, the spreadsheets ("maps") stored in Excel contain extra fields that are not uploaded to the mainframe. Prior to uploading, these columns of data must be deleted. If unfamiliar with the map, obtain a copy of the copybook member, stored on the mainframe in the copy library. The map name in Excel is equal to the copybook member name with an "M" appended to the front to indicate a map. For example, if the map in Excel is named "NETPROD", then the copybook name in TSO will be MNETPROD. Once the copybook is viewed, it's clear which columns of data must be deleted before the map is uploaded.

For the Medi-Cal project, spreadsheets are stored on the w-drive:

- w:/Ca-Med/datamanagement/phase x/specifications/maps
where 'x' of 'phase x' = represents the database – there are folders for each phase. For example, the p5.1 changes subdirectory contains the maps used for the test database 5.1.
Note: Changed maps are replaced in their entirety by the version uploaded from the LAN rather than simply being modified or appended to the previous version.

1.8.1 Uploading Maps

1. On the LAN, copy the spreadsheet to a new location other than the stored DM version.
2. Edit your copy of the spreadsheet:
 - Keep only the columns of data that will be uploaded
 - Delete headers, etc, so that only raw data remains.
3. Change FONT to COURIER for all fields.
4. Auto-fit rows (FORMAT; ROW; AUTOFIT)
5. Auto-fit columns (FORMAT; COLUMN; AUTOFIT)
6. Save as TYPE "PRN" instead of "XLS" (ignore error msg about multiple sheets – only single sheets are used).
7. In TSO, option 6, select File Send.
 - Environment = TSO
 - Scheme = Text Default
8. After file has been uploaded, go into TSO's File-Aid browse.
9. Bring up the file; be sure that you're using the correct copybook name AND PHASE / DATABASE VERSION for that copybook.
10. Check to see that data is falling into the correct columns and fields. If there's a problem, then manually edit the file to correct the problem. This process involves a comparison, on screen, between the uploaded version of the map and the stored version on the LAN. If the upload was unsuccessful, data from one column may be present in another, etc.

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11. When finished, sort the file (sortkey 1,80,BI,A) because it's currently in ASCII order, and needs to be put into BINARY order.
 - ==> *IMPORTANT NOTE: Map "NETPROD" is sorted first by key 1,80, and then by the third column of data (PHP code). If this is not done, then programs will abend.*
12. After sorting the file, copy it to an 80-byte member in the CNVRTMAP production data set (pds), appropriate to the phase you're working with.
13. Copy the file to an 80-byte member in the MIGR pds, appropriate to the phase you're working with (so it can be migrated).
 - * note – ignore the truncation msg you'll get when you do steps 11 and 12 -- all the maps are 80 bytes on the mainframe.
14. Do a SUPER C (comparison utility that identifies differences between two input files) of the new map against the old version of the map (edit column of SUPER C to be sure you do cols 1-80).
 - * note -- Any items marked with I or D ("insert" or "delete") need to be examined. As of this writing (4/10/00), the Validation Data Manager examines the SUPER C and gives the final "go/nogo" as to the accuracy of the map.
15. Download each SUPER C to the "compare" folder on the LAN:
 - w:/Ca-Med/datamanagement/phase x/specifications/maps/Px Compares
 - where 'x' of 'phase x' = phase you're working on
16. There should be one member for each map uploaded.
17. Send a note to the validation DM indicating that the compares are on the LAN.
18. The validation DM will inspect them, and if everything is ok, will give the go-ahead to migrate the maps to production.

1.9 Exit Criteria

This process is exited once approval of an uploaded map is provided and the map is promoted to the production processing library.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A.

1.10 Forms and Subject Examples

N/A

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1.11 Reference Material

N/A.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/10/00	John Mulcahy	Policy/Process Established

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1. MIS/DSS Server Operating System and Software Installation

1.1 Overview

Some of the MIS/DSS applications use NT servers for their interactive use as well as for the installation/update of their respective databases. In addition, two additional special purpose servers service the project need for batch execution of MyEureka! queries and server back-ups.

1.2 Purpose

This document describes the process necessary to install the server operating system (NT) as well as specific applications used on each server.

1.3 Scope

This document describes the processes affecting the project NT servers only.

1.4 Responsibility and Enforcement

The Tech Support manager is responsible to ensure that this document accurately describes the current Server Software installation described herein.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

An employee configuring/maintaining a project NT server should have strong Network Support skills and be familiar with troubleshooting and resolving Hardware/Software issues on NT platforms. There is an ASSUMPTION that the NT Server Installation is done by someone with prior advanced NT 4.0 Server experience.

1.7 Entry Criteria

This process is entered any time an additional NT server is added, replaced, or maintained on the project.

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1.8 Procedure Steps

1.8.1 Initial Server Installation

This section provides step by step instructions for building a new Windows NT 4.0 Server onto Compaq hardware. Operating System Installation:

Install NT.

1. Create a partition on the boot drive using max (4Gb).
2. Name: (Optional).
3. Per Seat Licensing depending on licenses purchased.
4. Determine if server is PDC, BDC, or Stand Alone Server.
5. Deselect all components that are not essential to operation of Server.
6. Deselect IIS.
7. Video Properties: 800X600, 60 hertz.

1.8.1.1 Operating System Configuration:

1. Install Service Pack.
2. Maximize Throughput for Servers
3. Virtual Memory
 - leave on C:\ or move page* to available drive
4. Disk Administrator
 - Assign D: to CD-ROM then Create partition for needed drive space specific to server function.
5. User Manager for Domains
 - Rename the Administrator account to ADMIN and change the Administrator password to current password in use.
 - Create local accounts as needed for the applications.
6. Event Viewer
 - Modify log files as follows:
 - System - Overwrite Events as Needed
 - Security - Overwrite Events as Needed
 - Application - Overwrite Events as Needed
7. Update IE to 5.0.

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8. Compaq SSD Support Software
 - Run \cpqsupsw\ntssd\setup, Express.
 - Select all suggested options, update.
 - Manually add Compaq Array Configuration Utility and HAL Recovery Option (change path to NT40 Server).
 - In control panel, ensure all options were added.
9. Create Emergency Repair Disk: Run "rdisk /S"

1.9 Exit Criteria

This process is exited after completion of each step listed above in Section 1.8, Procedure Steps.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

N/A

1.11 Reference Material

N/A.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/24/00	John Mulcahy	Policy/Process Established

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1. MIS/DSS Workstation Software Installation

1.1 Overview

The Management Information System/Decision Support System (MIS/DSS) deployed at Medi-Cal consists of Graphical User Interface (GUI) and back-end (Database) software that work in concert to provide the user with query results and reports on the data stored in the data warehouse. Depending upon the tasks performed by the user and their individual software needs, there is a given combination of GUI software on the workstation consisting of DataScan, Panorama View, Performance Measurement Workstation, MyEureka!, or MapInfo. In addition, the overall application suite has certain workstation requirements in order to operate at the expected level of performance. This process describes these workstation requirements as well as the installation efforts required to install each of the applications on a desktop workstation.

1.2 Purpose

The purpose of this process is to denote the necessary requisite hardware and software configurations and document the necessary steps for the proper installation of a desktop workstation containing MIS/DSS applications.

1.3 Scope

This process applies specifically to those aspects of the MIS/DSS that involve the desktop workstation.

1.4 Responsibility and Enforcement

The Tech Support manager will be responsible for ensuring that subsequent workstation installations adhere to the process described in this document.

1.5 General Considerations

The installation instructions for each of the application suite programs may change as time goes on depending upon the inclusion of new or modified functionality that is different from the preceding version.

1.6 Skill Requirements

Individuals installing the workstation applications should be aware of the basic functionality of each application as well as with installation processes that utilize the Windows setup shell program. In addition, this individual needs to understand the impact of software on the system configuration files on the PC and be able to make the necessary modifications to allow the application to function properly.

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1.7 Entry Criteria

This process is entered any time a request is received for a new workstation installation or an update to an existing workstation.

1.8 Procedure Steps

1.8.1 Workstation Requirements

To successfully run the MEDSTAT products, the following hardware and software requirements must be met.

CPU:	166 Megahertz Intel Pentium processor or faster
CD ROM:	Recommended, not required
Memory:	64 Megabytes or more
HD:	400 Megabytes of free space available
Monitor:	SVGA or better
Communications:	Network interface card, 3270 Software
Software:	Windows 95, MS Office 97, Internet Explorer 4.0 or higher
Network Protocols:	TCP/IP, DLC 32-bit

1.8.2 Workstation Configuration for Windows 95

1.8.2.1 Network

TCP/IP protocol

This protocol is required for the Panorama and PMW products to connect to the servers.

DLC 32-bit protocol

The protocol is required for MyEureka! and the DataScan products to connect to the Mainframe.

IPX protocol

The frame type needs to be changed from auto to 802.2 to allow Attachmate and PCOMM to establish host sessions at the same time.

SYSTEM.INI

In the [386Enh] section of the SYSTEM.INI file, 'device=v802d.386' and 'device=vsdlcd.386' needs to be added. This change is required for DataScan to work correctly. The SYSTEM.INI file can be found in the c:\windows\system folder. Only update the SYSTEM.INI file after Attachmate has been installed.

Display settings

The color palette needs to be set to High Color (16 bit), the screen resolution set to 800 X 600 pixels, and the default font size set to small. These settings are needed for Panorama to work correctly.

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1.8.2.2 Product installation

These procedures are broken down by user type with instructions for installing products for the MIS, DSS, IQ, PMW, and MAP user.

User Type Key

MIS

Panorama

DSS

Attachmate (or equivalent)
DataScan

IQ

Rumba (or equivalent)
MyEureka!

PMW

ISQL/w
PMW

Map

MapInfo

1.8.2.3 MIS installs

Install Panorama (V1.2)

- Go to the Panorama installation folder and execute the *setup.exe*. This will begin the installation of Panorama.
- On the **Panorama Setup** screen, click “**NEXT**”.
- On the **Choose Destination Location** screen, verify the destination folder is set to **C:\MEDSTAT\PANORAMA** and Click “**NEXT**”.
- Click “**NEXT**” again. The install shield will now start the installation of Panorama.
- When prompted “*Do you wish the Panorama icon to be placed on the desktop?*” Click “**NO**”.
- Next you will receive a dialog box with the message “*Registering Shared Components*”.
- Now **DAO** setup will execute.
- When you get the **Setup Complete** screen, select “**RESTART MY COMPUTER NOW**” and Click “**FINISH**”.
- After the system has finished rebooting, create a new folder on the desktop and name it “**The MEDSTAT Suite**”.
- Go to the **Windows Explorer** and go to the **C:\WINDOWS\START MENU\PROGRAMS\MEDSTAT** folder.
- Create a new folder and name it **Panorama**.
- Move the **Panorama shortcut** to the new Panorama folder.
- Copy the **Panorama shortcut** to “**The MEDSTAT Suite**” folder on the desktop.

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1.8.2.4 MIS Configuration

The lone configuration issue with Panorama is to indicate which server the **PANORAMA.INI** file is pointing to. To check or change the server:

- **Edit c:\medstat\panorama\panorama.ini**
- Go to the section labeled “**Remote**”
- Verify that the **ServerID** is set to **158.96.30.4** for production.

1.8.2.5 DSS and IQ installs


Install Attachmate (V4.3A)

- Go to the **Attachmate Extra** installation folder and execute the **SETUP.EXE** file.
- Click ‘**NEXT**’ on the **Extra! for Windows** setup screen.
- Click ‘**ACCEPT**’ on the software license information screen.
- Enter the name and company and click ‘**NEXT**’ on the user information screen.
- Select ‘**LOCAL**’ and click ‘**NEXT**’ on the setup mode screen.
- Verify the program directory (**C:\EXTRAWIN**) and click ‘**NEXT**’ on the change directory screen.
- Verify the user directory (**C:\EXTRAWIN\USER**) and click ‘**NEXT**’ on the change user directory screen.
- Select ‘**Custom**’ and click ‘**NEXT**’ on the setup type screen.
- Verify that **Extra! for Windows** and **APPC Client** are checked and click ‘**NEXT**’ on the **Select Component** screen.
- Click ‘**NEXT**’ on the **Select Program Group** screen.
- Select ‘**YES**’ to add the **Extra! Directory** to your path and click ‘**NEXT**’ on the **Update Path** screen.
- Select ‘**YES**’ to add the **APPC Client** directory to your path and click ‘**NEXT**’ on the **Update Path** for the **APPC Client** screen.
- Click ‘**NEXT**’ on the **Start Copying Files** screen.
- Click ‘**EXIT Setup**’ on the **Configure Extra** screen.
- Select ‘**REBOOT SYSTEM**’ and click ‘**FINISH**’ on the **Exit Setup** screen.
- After the system has rebooted. Go to **C:\windows\start menu\programs**.
- Create a folder labeled **Utilities** if it does not exist.
- Drag and drop the folder ‘**EXTRA! for Windows**’ into the **Utilities** folder

1.8.2.5.1 Configure Attachmate

- Go to the **Utilities** folder under **W:\Apps\Medstat\Utilities** and open the **DSCAN4** folder.
- Open the **DSCANFIX** folder.
- Execute the **DS_FIX.BAT** file.
- Go to the **Utilities** folder under **W:\Ca_med\Techsupp\The Medstat Suite** and open the **Extra!** folder
- Execute the **CONFIG.BAT** file.
- Click on **Start**

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- Select **Programs**
- Select **Utilities**
- Select **Extra! for Windows**
- Click **Node Operator Facility**
- Click on

- Highlight '**LAN Attached (802.2)**' and click on '**Configure**'
- Set **Destination Address** to **400005DCD31D**
- Click on '**SNA**'
- Enter the **LU Address** in the **Control Point Name** field
- Click '**OK**'
- Click '**OK**'
- Click '**YES**' to save changes
- Click '**SELECT**'
- Click on '**APPC**'
- Select **LU**
- Double click on '**Local LU**'
- Update the **LU Alias and Description** to reflect the correct **LU Address**
- Click '**OK**'
- Close the **Configure APPC LU Pairs** screen
- Click '**YES**' to save current configuration changes
- Close **Node Operator Facility**
- Edit **SYSTEM.INI** file and add '**Device=v802d.386**' and '**Device=vsdlcd.386**' to the **[386Enh]** section.
- Reboot PC
- Click on **Start**
- Select **Programs**
- Select **Utilities**
- Select **Extra! for Windows**
- Click **Extra! Configurator**
- Click on **Open Session**
- Verify the connection with **HWDC** and close the session
- Close **Extra! Configurator**

1.8.2.6 Install DataScan (V4.01M)

- Go to the **DataScan Installation** folder and execute the **SETUP.EXE** file.
- Verify that **all options are checked** and click '**OK**' on the **DataScan Configuration Options** screen.
- Verify that the **Database Name** is set to '**MEDSTAT**' and click '**OK**'.
- Verify that the **Database Title** is set to '**DATASCAN SYSTEM**' and click '**OK**'.

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- Verify that the **Program Title** is set to '**DATASCAN**' and click '**OK**'.
- Set the **Program Group** to '**DATASCAN**' and click '**OK**'.
- Set the **desired location** for DataScan to '**C:\MEDSTAT\DSKANxxx**' (where xxx = the version)' and click '**OK**'.
- Verify that the configuration is correct and click '**YES**'.
- DataScan will now be installed.
- Click '**NO**' when prompted to **view the readme file**.
- Go to **C:\Windows\Start Menu\Programs**.
- Create a folder labeled **Utilities** if it does not exist.
- Create a folder labeled **Medstat** if it does not exist.
- Copy the folder '**DATASCAN**' into the **Utilities** folder.
- Delete the **DATASCAN shortcut** from **C:\Windows\Start Menu\Programs\Utilities\Datascan** folder.
- Drag and drop the **DATASCAN** folder into the **Medstat** folder.
- Delete the **DataScan Config** shortcut from **C:\Windows\Start Menu\Programs\Medstat\Datascan** folder.
- Create a folder on the **Desktop** labeled '**The MEDSTAT Suite**' if it does not exist.
- Copy the **DataScan** shortcut into **The MEDSTAT Suite** folder on the desktop.

1.8.2.6.1 Configuring DataScan

Go to **START, PROGRAMS, UTILITIES, DATASCAN, DATASCAN CONFIG. V4.20**.

- Double Click on "**Default Datascan Configuration**".
- Change the "**Description**" to "**DHS Production Database**". All other sections are correct.
- Select "**Update**", Exit out.

1.8.2.7 Install Rumba (V5.2C)

- Go to the **Rumba 5_2** folder under **W:\Ca_med\Techsupp\The Medstat Suite** and execute the **SETUP.EXE** file.
- Click '**INSTALL**' for **Rumba 95/NT** on the welcome screen.
- When prompted enter the **Product Serial Number** and **Product Key** and click '**NEXT**'.
 - **Product serial number** = **PAC 00045361**
 - **Product key** = **VGCDSRDF 96**
- Click '**ACCEPT**' on the **Software License Agreement** screen.
- Enter the **Name (MISDSS)** and **Company (CA DPT of HEALTH SVCS)** and click '**NEXT**' on the **User Information** screen.
- Select **Custom** and click '**NEXT**' on the **Select the Setup Option** screen.
- Next you will need to select which options you would like to have installed.
 - Click '**REMOVE**'

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- Click the **plus sign** next to the **Arpeggio Data Access** in the options list.
- Highlight '**Rumba ODBC Driver**' and click '**ADD**'.
- Scroll down through the list and click the **plus sign** next to **APPC Client**.
- Click the **plus sign** next to **Mainframe Interface**.
- High light '**802.2 DLC**' and Click '**ADD**'.
- Click '**NEXT**'.
- Click '**YES**' on the **Setup Dialog** box.
- Click '**NEXT**' on the **Select Private Directories** screen.
- The install shield will now install the options you selected.
- Click '**NO**' on the **Wall Data Registration** screen.
- Click '**YES**' on the **Wall Data Registration Confirmation** screen.
- Click '**NO**' on the **Question** screen.
- Select '**Yes, I want to restart my computer now**' and click '**OK**' on the **Restart Windows** screen.
- After the system reboots. Go to **C:\Windows\Start Menu\Programs**
- Create a folder labeled **Utilities** if it does not exist.
- Drag and drop the **Rumba 95 NT** folder into the **Utilities** folder.

1.8.2.7.1 Configuring Rumba

- Go to the **Utilities** folder under **W:\Ca_med\Techsupp\The Medstat Suite** and open the **Arpeggio** folder
- Open the **Arpegfix** folder.
- Execute the **Arpegfix.bat** file. (This will copy over the Rumba configuration file).
- Click on '**FILE**' and then '**EXIT**'
- Close the **Arpegfix Execution** screen
- Click on **Start**
- Select **Programs**
- Select **Utilities**
- Select **Rumba 95 NT Folder**
- Select **Rumba Administrative Tools**
- Click on **APPC Configuration**
- Click on '**FILE**' from the **Rumba APPC Configuration** screen.
- Click '**OPEN**'.
- Double click on '**HWDC.CFG**'.
- Double click on **Connections**
- Set the following options:
 - **Link Name:** **HWDC**
 - **Block ID:** **05D**
 - **Node ID:** **A00xx (xx = last 2 digits of the LU address)**
 - **Destination Address:** **400005DCD31D**
 - **Remote SAP Address:** **04**
 - **Local SAP Address:** **08**

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- Set the **Link Options** to **Mainframe**
- Click on the **Advanced Tab**
- Uncheck **Auto Start Link**
- Check **Auto Disconnect Link**
- Click **'OK'**.
- Enter the **LU Address** in the **Control Point Name**
- Double click on the **Local LU's**.
- Enter the **LU Alias** (same as the **Control Point Name**)
- Enter the **LU Name** (same as the **Control Point Name**)
- Click **'OK'**
- Double click on **Side Info Value DBHMTD**
- Click on arrow next to **Local LU Value** and select **LU** from list
- Click **'OK'**
- Double click on **Side Info Value DBHMPD**
- Click on arrow next to **Local LU Value** and select **LU** from list
- Click **'OK'**
- Close panel
- Click **'YES'** to save changes

1.8.2.7.2 Configure ODBC32

- Double click on **My Computer**
- Double click on **Control Panel**
- Double click on **32bit ODBC**
- Click on **System DSN** tab
- Click **'ADD'**
- Select **'RUMBA DRDA-32'** and click **'FINISH'**
- Click **'OPTIONS'**
- Set **Catalog Owner** to **'SYSIBM'** and click **'OK'**
- Set **Data Source** to **'DBHMPD'**
- Set **RDB Name** to **'HWDCHMPD'**
- Set **Default Owner** to **'HDHMSP'**
- Click **'COMMUNICATIONS>>'**
- Set **Mode Name** to **'IBMRDB'**
- Set **Remote LU** to **'DBHMPD'**
- Click **'OK'**
- Click **'ADD'**
- Select **'RUMBA DRDA-32'** and click **'FINISH'**
- Click **'OPTIONS'**
- Set **Catalog Owner** to **'SYSIBM'** and click **'OK'**
- Set **Data Source** to **'DBHMTD'**
- Set **RDB Name** to **'HWDCHMTD'**
- Set **Default Owner** to **'HDHMSP'**

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- Click '**COMMUNICATIONS>>**'
- Set **Mode Name** to '**IBMRDB**'
- Set **Remote LU** to '**DBHMDT**'
- Click '**OK**'
- Click '**OK**'
- Close Control Panel

1.8.2.8 Install MyEureka! (V6.1.300)

- Go to the **MyEureka!** Folder under **W:\Apps\MyEureka\v6.13** and execute the **LAUNCH.EXE** file.
- Click on '**INSTALL REPORT DESIGNER**'.
- Click '**NEXT**' on the **Welcome** screen.
- Enter the **Product Key** and click '**OK**' on the **Activation Key** screen.
 - **Product key = 0x8b40-bb22-84bc-d2b5-c417-b45b-0778**
- Verify that **Typical Installation** is selected and click '**NEXT**' on the **Setup Type** screen.
- Click '**YES**' on the **Confirm New Folder** screen.
- Click '**NEXT**' on the **ODBC Drivers** screen.
- Click '**NEXT**' on the **Program Folder** screen.
- Click '**INSTALL**' on the **Confirm Selection** screen.
- The install shield will now install MyEureka!
- Select '**Yes, I want to restart my computer now**' and click '**FINISH**' on the **Setup Complete** screen.
- After the system reboots. Go to the **C:\Windows\Start Menu\Programs** folder.
- Create a folder labeled **Medstat**.
- Open the folder labeled **Medstat**.
- Create a folder labeled **MyEureka!**.
- Copy into the **MyEureka!** folder the **Report Designer Shortcut** from **C:\Windows\Start Menu\Programs\MyEureka! Report Designer** folder.
- Rename the **Report Designer Shortcut** to **MyEureka!**
- Create a folder on the **desktop** and name it '**The MEDSTAT Suite**' if it does not exist.
- Copy the **MyEureka! Shortcut** into **The MEDSTAT Suite** folder on the desktop.

1.8.2.8.1 Install ISQL/w (V6.5)

- Go to the **SQL Installation** folder under **W:\Apps\SQLServer65** and execute the **SETUP.EXE** file.
- Click '**CONTINUE**' on the **Welcome** screen.
- Verify **Install Client Utilities** is selected and click '**CONTINUE**' on the **Install/Remove Client Utilities** screen.
- Verify that **all utilities** are selected to be installed.

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- Verify the **Drive** and **Install Directory** and click '**CONTINUE**' on the **Install Client Utilities** screen.
- Verify installation on hard disk and click '**CONTINUE**' on the **SQL Server Books Online** screen.
 - Click on '**REBOOT**' on the **Microsoft SQL Server 6.5 Complete** screen.
- After the system reboots. Go to **C:\Windows\Start Menu\Programs**.
- Create a folder labeled **Utilities** if it does not exist.
- Drag and drop the folder labeled **Microsoft SQL Server 6.5 Utilities** into the **Utilities** folder.

1.8.2.8.2 Configure SQL

- Click **Start**.
- Select **Programs**.
- Select **Utilities**.
- Select **Microsoft SQL Server 6.5 Utilities**.
- Click on **SQL Client Configuration Utility**.
- Click on the **Net Library** tab.
- Set **Default Network** to '**TCP/IP Sockets**'.
- Click on the **Advanced** tab.
- Under **Client Configuration**.
- Set **Server** to '**PMW**'.
- Set **DLL Name** to '**TCP/IP Sockets**'.
- Set **Connection String** to '**158.96.30.5**'.
- Click on '**Add/Modify**'.
- Click '**DONE**'.

1.8.2.9 Install PMW (V1.2 1999)

- Go to the **PMW** folder under **W:\Apps\PMW1999_v1.2** and execute the **Setup.exe** file.
- Click '**NEXT**' on the **Welcome** screen.
- Click '**NEXT**' on the **Select Components** screen.
- Change the **Program** folder to **PMW**, and click '**NEXT**' on the **Select Program Folder** screen.
- Click '**NEXT**' on the **Confirm Installation Settings** screen.
- The install shield will now install PMW.
- Uncheck '**Yes, I want to view the PMW readme file**', '**Yes, I want to launch the PMW client program**', and click '**FINISH**'.
- Go to the **C:\Windows\Start Menu\Programs** folder.
- Create a folder labeled **MEDSTAT** if it does not exist.
- Drag and drop the **PMW** folder into the **MEDSTAT** folder.
- Create a folder labeled **The MEDSTAT Suite** on the desktop if it does not exist.

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- Copy the **PMW Shortcut** from **C:\Windows\Start Menu\Programs\Medstat\PMW** into the **MEDSTAT Suite** folder on the desktop.

1.8.2.9.1 Configure PMW

- Launch **PMW**.
- Set **Server** to '**PMW**'.
- Set **Database** to '**PMW**'.

1.8.2.10 Map Install

1.8.2.10.1 Install MapInfo (V4.12)

- Go to the **MapInfo** folder under **W:\Ca_med\Techsupp\The Medstat Suite\Mapinfo** and execute the **SETUP.EXE** file.
- Enter **Name**, **Organization**, and **Serial Number** and click '**NEXT**' on the registration information screen.
 - **Serial number = W412838727**
- Verify **Standalone Workstations** and **Standard Installation** and click '**NEXT**' on the **Mapinfo 4.1 Setup** screen.
- Verify **Installation Directory** and click '**FINISH**' on the **Standard Installation** screen.

1.8.2.10.2 Map Configuration

- Go to the **Utilities** folder under **W:\Apps\Medstat** and open the **MapInfo** folder.
- Copy the **California** folder into the **C:\Mapinfo\Data** folder.

1.8.3 Workstation Configuration for NT

1.8.3.1 Network

TCP/IP protocol

This protocol is required for the Panorama and PMW products to connect to the servers.

1.8.3.2 DLC 32-bit protocol

The protocol is required for MyEureka! and DataScan products to connect to the Mainframe.

1.8.3.3 IPX protocol

The frame type needs to be changed from auto to 802.2 to allow PCOMM to establish host sessions at the same time.

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1.8.3.4 Display settings

The color palette needs to be set to High Color (16 bit), the screen resolution set to 800 X 600 pixels, and the default font size set to small. These settings are needed for Panorama to work correctly.

1.8.3.5 Product installation

These procedures are broken down by user type with instructions for installing products for the MIS, DSS, IQ, PMW, and MAP user.

1.8.3.6 User Type Key

MIS

- Panorama

DSS

- Attachmate
- DataScan

IQ

- Rumba
- MyEureka!

PMW

- MSSQL 7.0 Client
- PMW 2000

Map

- MapInfo

1.8.3.7 MIS installs (Install All Applications then Run the Batch File)

1.8.3.7.1 Install Panorama (V1.2)

- Go to Rollout CD **Panorama20\Client\Install** and execute the **Setup.exe**.
- On the **Panorama Setup** screen, click “**NEXT**”.
- On the **Choose Destination Location** screen, verify the destination folder is set to **C:\MEDSTAT\PANORAMA** and Click “**NEXT**”.
- Click “**NEXT**” again. The install shield will now start the installation of Panorama.
- When prompted “*Do you wish the Panorama icon to be placed on the desktop?*” Click “**NO**” this icon will be placed for you when you run the batch file into “**The MEDSTAT Suite**” folder on the desktop.
- Next you will receive a dialog box with the message “*Registering Shared Components*”.

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- Now **DAO** setup will execute.
- When you get the **Setup Complete** screen, select “**RESTART MY COMPUTER NOW**” and Click “**FINISH**”.
- After the system has finished rebooting continue with installation of all other applications.

1.8.3.8 MIS Configuration

1.8.3.8.1 Panorama Configuration

- When all applications are completely installed run the batch file before testing the applications. The configuration files will be copied for you.
- **Launch PV and test for connection then make sure you can get data pull from the server.**
- **Check the following:**
 1. Click on Beneficiary View
 2. Click on Expenditures folder
 3. Click on the first question
 4. Make sure a graph comes up
 5. Database window (i.e. data on bottom of graph): May 1998 – June 2000 (5.3 database)
 6. If the screen does not show a complete view of the graph, Click on *Control Panel* and make sure that User Settings are 800x600 Pixels for screen resolution.
 7. Click on *Time Period (clock icon)*, Choose *Yearly*, and OK. Then, *Double Click on the most recent fiscal year graph*. Then, *click and drag* a dimension onto the report. Ensure this works without error.
 8. Access Briefing Book, highlight 2-3 reports. Make sure the reports display properly.

1.8.3.9 DSS and IQ install

1.8.3.9.1 Install DataScan (V4.2)

- DataScan will be bulk copied to the C:\ drive when you run the batch file. Verify a folder C:\Medstat\Dscan exists after the batch file completes.

1.8.3.9.2 Configuring DataScan 4.2

The configuration files are copied for you when you launch the batch file.

- If you need to verify the settings use the information below for comparison.
- Go to **Start, Programs, Utilities, Datascan, Datascan 4.2F IP Config.**
- Make sure the check marks are on Mainframe and TCP/IP.
- Double Click on “**Database, connection & comm. settings**”.

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- Change the “**Description**” to “**DHS Production Database**”. Click on Transactions to make sure “**T**” is set in the entry box. Click on Communications and set the Port to 32764 with the Host Name to hwdcs4.cahwnet.gov.
- Select “**Update**”, Exit out.
- Make sure you can connect using your login id and password for Mainframe.

Check the following:

1. When signing into DataScan, the “counts” in the lower left hand corner should be the following (this is the Production Database):
 - IP Case: 1,132,385
 - Episodes: 25,688,241
 - IP Svc: 24,864,887
 - OP Service: 299,820,128
2. Check the “Services” Database Window in the right hand corner of the opening DataScan screen. The production database is from May 1998 – Oct 2000
3. This will ensure that we are “pointing” to the correct region.
4. Check User Settings
5. Click on *Work Environment, User Settings*
6. Window Size: Click on *Standard*
7. Table Sizes: Click on *Do NOT Count Subsets*
8. Initiate a routine subsetting function to ensure the connection and “COLLKUP is working. Steps are as follows:
 - From the first screen you see when you sign in, click on *Data Selection, Subsetting*.
 - Then, click on *Operations, Select by Record*.
 - *Highlight* the IP Case Table and click on *Select*
 - *Type product* in the “field” box
 - *Double Click* in the “value” box.
 - *Double Click* on “value” 3
 - Click on *Accept, Done, Done (again)*
 - Click on *Prepare!* (upper left hand corner of screen).
 - Make sure no errors occur in this process

1.8.3.10 Install Rumba 2000 (V6.0)

- Go to the \Rumba 2000 folder on the Rollout CD and execute the **SETUP.EXE** file.
- Click ‘**INSTALL**’ for **Rumba 2000** on the **Welcome** screen.
- When prompted enter the **Product Serial Number** from the **Product Key Code.txt** file and click ‘**NEXT**’.
 - **Product serial number = PAC - 00507681**
 - **Product key = RSEVGBFJ -74**
- Click ‘**ACCEPT**’ on the **Software License Agreement** screen.
- Enter the **Name (MISDSS)** and **Company (CA DEPT of HEALTH SVCS)** and click ‘**NEXT**’ on the **User Information** screen.

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- Select **Custom** and click **'NEXT'** on the **Select the Setup Option** screen.
- Next you will need to select which options you would like to have installed.
 - Click **'REMOVE'**
 - Click the (+) next to the **Arpeggio Data Access** in the options list.
 - Highlight **'Third Party ODBC'** and click **'Remove'**.
 - Highlight **'TCP/IP'** and click **'Add'**
 - Scroll down through the list and click the (+) next to **APPC Client**.
 - Click the (+) next to **Mainframe Interface**.
 - Highlight **'802.2 DLC'** and Click **'ADD'**.
 - Click **'NEXT'**.
- Click **'YES'** on the **Setup Dialog** box.
- Click **'NEXT'** on the **Select Private Directories** screen.
- The install shield will now install the options you selected.
- Click **'NO'** on the **Wall Data Registration** screen.
- Click **'YES'** on the **Wall Data Registration Confirmation** screen.
- Click **'NO'** on the **Question** screen.
- Select **'Yes, I want to restart my computer now'** and click **'OK'** on the **Restart Windows** screen.
- After the system reboots, Go to **Start, Programs, Utilities, Rumba, Rumba Administrative Tools, Wall Data PTF Installer**
- Install the **PTF's** from each folder in \Utilities\Rumba\APP and ODB on the **Rollout CD**.
- Go to the Desktop and delete the **Rumba 2000** folder.

1.8.3.11 Configuring Rumba

- The HWDC.cfg file will be copied to the C:\Program Files\Walldata\System folder for you when you run the batch file. Make the edits as instructed during the batch file run to configure the HWDC.cfg file.
- If you need to verify the settings after the batch file runs do the following.
- Click on **Start, Programs, Utilities, Rumba, Rumba Administrative Tools, APPC Configuration**
- Click on **'FILE'** from the **Rumba APPC Configuration** screen.
- Click **'OPEN'**.
- Double click on **'HWDC.CFG'**.
- Double click on **Connections**
- Set the following options:
 - **Link Name:** HWDC
 - **Block ID:** 05D
 - **Node ID:** A00xx (xx = last 2 digits of the LU address)
 - **Destination Address:** 400005DCD350
 - **Remote SAP Address:** 04
 - **Local SAP Address:** 08

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- Set the **Link Options** to **Mainframe**
- Click on the **Advanced Tab**
- Uncheck **Auto Start Link**
- Check **Auto Disconnect Link**
- Uncheck **XID Type 3**
- Click **'OK'**.
- Enter the **LU Address** in the **Control Point Name** Use **DHSNT010 thru 100**
- Double click on the **Local LU's**.
- Enter the **LU Alias** (same as the **Control Point Name**)
- Enter the **LU Name** (same as the **Control Point Name**)
- Click **'OK'**
- Double click on **DBHMTD** in **Side Info**
- Click on arrow next to **Local LU** and select **LU** from list
- Click **'OK'**
- Double click on **DBHMPD** in **Side Info**
- Click on arrow next to **Local LU** and select **LU** from list
- Click **'OK'**
- Close panel
- Click **'YES'** to save changes

1.8.3.12 Configure ODBC32

- Go to **Start, Settings, Control Panel, 32bit ODBC**
- Click on **System DSN** tab
- Click **'ADD'**
- Select **'RUMBA DRDA-32'** and click **'FINISH'**
- Click **'OPTIONS'**
- Set **Catalog Owner** to **'SYSIBM'** and click **'OK'**
- Set **Data Source** to **'DHSPROD'**
- Set **RDB Name** to **'HWDCHMPD'**
- Set **Default Owner** to **'HDHMSP2'**
- Click **'COMMUNICATIONS>>'**
- Set **Mode Name** to **'IBMRDB'**
- Set **Remote LU** to **'DBHMPD'**
- Click **'OK'**
- Click **'ADD'** (This is Optional for most stations unless you are in the Test Lab)
- Select **'RUMBA DRDA-32'** and click **'FINISH'**
- Click **'OPTIONS'**
- Set **Catalog Owner** to **'SYSIBM'** and click **'OK'**
- Set **Data Source** to **'DHSTEST'**
- Set **RDB Name** to **'HWDCHMTD'**
- Set **Default Owner** to **'HDHMSP2'**

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- Click '**COMMUNICATIONS>>**'
- Set **Mode Name** to '**IBMRDB**'
- Set **Remote LU** to '**DBHMTD**'
- Click '**OK**'
- Click '**ADD**'
- Close Control Panel

1.8.3.13 Install MyEureka! (V6.1.3)

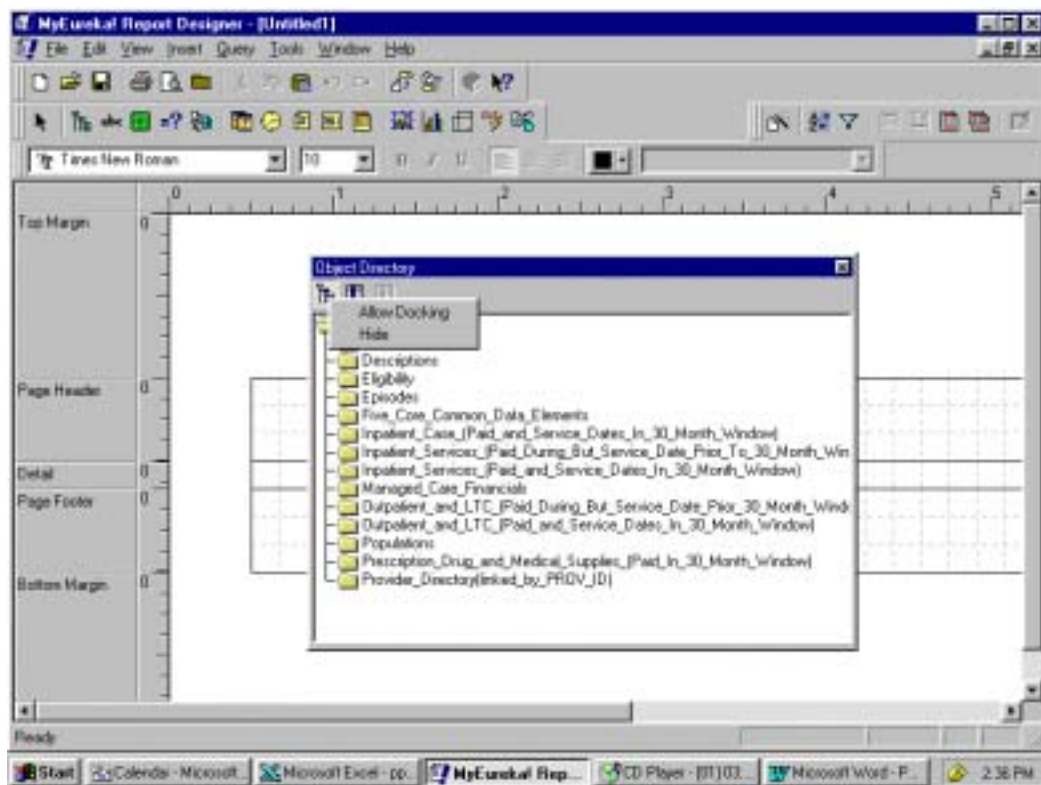
- Go to the **MyEureka!** Folder on the Rollout CD and execute the **LAUNCH.EXE** file.
- Click on '**INSTALL REPORT DESIGNER**'.
- Click '**NEXT**' on the **Welcome** screen.
- Enter the **Product Key** and click '**OK**' on the **Activation Key** screen.
 - **Product key = 0x8b40-bb22-84bc-d2b5-c417-b45b-0778** or you can open \MyEureka\MyEureka_Product_Key.txt file to copy and paste.
- Verify that **Custom Installation** is selected and click '**NEXT**' on the **Setup Type** screen. Then make sure you uncheck the **Sample Databases, and ODBC Help files**.
- Click '**YES**' on the **Confirm New Folder** screen.
- Click '**NEXT**' on the **ODBC Drivers** screen.
- Click '**NEXT**' on the **Program Folder** screen.
- Click '**INSTALL**' on the **Confirm Selection** screen.
- The install shield will now install MyEureka!
- Select '**Yes, I want to restart my computer now**' and click '**FINISH**' on the **Setup Complete** screen.
- The icons, **Medical.IQK**, and **Test.IQR** files will be placed on the PC for you when you run the batch file. Be sure to **Double Click** on the **IQK_Auto.reg** file from the Floppy to update the registry for Auto-updating the Medical.iqk file from the Report Server.

1.8.3.14 Configure MyEureka!

- Go to **Start, Programs, Medstat, MyEureka**
- Cancel out of the **Report Query** screen.
- **Check the following:**

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Make sure the Object directory is a “floating” directory. If “docked” right click on the



Object Directory and “check off” the Docking.

Click on Tools, Preferences:

“Print Charts using Patterns” should be the only default checked.

Click on “Connection”:

Data Source should be “DHSPROD”

Make sure “*Prompt for Data Source at Runtime*” is checked.

Default Metadata File should be: C:\MyEureka\Report Designer\Medical.iqk

Server Name: Type in 158.96.30.7, then click on refresh server

Make sure a Query will run:

Double click on IP Case Table, Click and drag SEX_CD and Record Count into the detail area. Then click on “print preview.” MAKE SURE THE DEFAULT DB COLLECTION IS HDHMSP2 (Production Database). The record count total should be;

Blank = 22,340

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1 = 301,064
2 = 808,981

Check that Report Server is working:

Save the previous query as test.iqr (one field query).

Click on File, Report Server, Submit

Source: File you would like to submit

Click on "Server Information": Make sure the server is 158.96.30.7 (same as in Connection).

Click on *Submit Job*

Check on Job: Click on File, Report Server, then Job Info

Check Status and attempt to retrieve.

Troubleshoot if unable to work

Exit My Eureka and make sure the session is closed:

1.8.3.15 Install SQL SERVER (V7.0)

- Go to the **SQL Server 7.0** CD and it should do Autorun when inserted. If it does not Autorun then access the CD and find Setup.exe to launch.
- Select **Database Server-Standard Edition**
- A box will come up and tell you that it can only install certain components, select **O.K.**
- Select **Next** to continue, Select **Install SQL Server 7.0 Components.**
- Then Select **Database Server - Desktop Edition.**
- Then Select **Local Install - Install to Local Machine.**
- Click on Next to install application into **C:\MSSQL7.**
- When you get to the screen that asks what type of installation Typical, Minimal, or Custom **select Custom.**
- On the **Select Components** screen uncheck everything except **Client Connectivity.**
- Program will begin loading
- Select **Finish** at the end of the install
- The batch file will place the Icons for PMW for you and move the folder labeled **Microsoft SQL Server 7.0 Utilities** into the **Utilities** folder for you.

1.8.3.16 Configure SQL

- Click **Start, Programs, Utilities, Microsoft SQL Server 7.0**
- Click on **Client Network Utility.**
- Select **Add** to add another server
- Set **Server Alias** to **PMW1**
- Set **Computer Name** to '**158.96.30.6**'.
- Make sure that the **Network Libraries** has **TCP/IP** selected

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- Make sure that the **Port Number** is blank
- Select **Add** to add another server
- Set **Server Alias** to **PMW2**
- Set **Computer Name** to '**158.96.30.5**'.
- Make sure that the **Network Libraries** has **TCP/IP** selected
- Make sure that the **Port Number** is blank
- Click '**DONE**'.

1.8.3.17 **Install PMW 2000(V1.0)**

- Go to the **Rollout CD**, look for **PMW 2000** and execute the **Setup.exe** file.
- Click '**NEXT**' on the **Welcome** screen.
- Click '**NEXT**' on the **Select Components** screen.
- Change the **Program** folder to **PMW2000**, and click '**NEXT**' on the **Select Program Folder** screen.
- Click '**NEXT**' on the **Confirm Installation Settings** screen.
- The install shield will now install PMW.
- Uncheck 'Yes, I want to view the PMW readme file', 'Yes, I want to launch the PMW client program', and click '**FINISH**'.
- The batch file will create icons for PMW for you.

1.8.3.18 **Configure PMW 2000**

- Launch **PMW 2000**.
- Login with **PMW2000** and password of "**medstat**"
- Set **Server** to '**PMW2**'.
- Set **Database** to '**PMW2000**'.
 1. You will go directly to "Report Control Selector"
 2. Make sure the following are set for defaults:
 3. MCO: Alameda Alliance
 4. Payer: Medicaid Total
 5. Product: All
 6. Eligcat: All
 7. Eligcnty: All
 8. Employer: Medi-Cal/All
 9. Then, click on *OK*.
 10. Now, run a report: Click on *Measures, Effectiveness of Care, Childhood Immunization Status, Administrative*.
 11. Ensure a report is produced.

1.8.3.19 **MapInfo Install**

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1.8.3.19.1 Install MapInfo (V4.12)

- Go to the **MapInfo** folder on the **Rollout CD** and execute the **SETUP.EXE** file.
- Enter **Name (MISDSS)**, **Organization (CA DEPT of HEALTH SVCS)**, and **Serial Number** and click '**NEXT**' on the **Registration Information** screen.
 - **Serial number = W412838727**
- Verify **Standalone Workstations** and **Standard Installation** and click '**NEXT**' on the **Mapinfo 4.1 Setup** screen.
- Verify **Installation Directory** and click '**FINISH**' on the **Standard Installation** screen.

1.8.3.19.2 Map Configuration

- Go to the **MapInfo** folder on the **Rollout CD**.
- Copy the **California** folder into the **C:\Mapinfo\Data** folder.
- You will need to create shortcuts for MapInfo in two places.
- First on the desktop folder "The MEDSTAT Suite" and then under C:\Winnt\Profiles\All Users\Start Menu\Programs\Medstat. Create a folder under Medstat called MapInfo and then place the shortcut.

Check the following:

1. Open application
2. Click on File, Open table.
3. Make sure that CA information can be accessed from the C:\ Drive. The CA folder should include the following: CA_city.TAB, CA_cnty_TAB, CA_landmrks_TAB, CA_zipbdy, California.TAB.

1.9 Exit Criteria

This process is exited upon successful installation of one or more applications.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

N/A

1.11 Reference Material

N/A

1.12 Policy History

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Established/Revision Date	Established/Revised By	Change Description
4/24/00	John Mulcahy	Policy/Process Established
2/22/01	John Mulcahy/Bruce Maire	Updated to reflect process required for NT machines

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1. My Eureka! Knowledge Base Reload and Modification

1.1 Overview

MyEureka!, a third-party reporting tool, supplements DataScan custom report capabilities and provides trained end-users with the capability to design queries and reports from the detailed DB2 tables in the MIS/DSS data warehouse. MyEureka! generates queries using a graphical user interface and formats the resulting information using various combinations of text, tabular reports, graphs and charts. MyEureka! utilizes data in the DB2 relational database tables.

In order to present the information contained in the DB2 tables in a more user-friendly way, a file, called MyEureka! MetaData, is customized to include folders and fields that represent the DB2 tables and fields. The MetaData file is customized using the MetaData Manager, a function within the administrator version of MyEureka!

This document was created to describe the process by which the MyEureka! MetaData File will be maintained.

1.2 Purpose

The purpose of this document is to outline the steps for updating the MyEureka! MetaData file, which will occur as fields are added, deleted or changed in the DataScan database.

1.3 Scope

This document will be used by any project team member responsible for maintaining the MyEureka! MetaData file.

1.4 Responsibility and Enforcement

The MIS/DSS project team is responsible for enforcement of this document.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

The skills required to perform this process include strong familiarity in the following areas:

- DataScan
- MyEureka!
- MapInfo

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- Basic mainframe subsystem navigation
- SQL
- Basic DB2 field and table structure

1.7 Entry Criteria

This process is entered any time the MyEureka! MetaData file is to be modified.

1.8 Procedure Steps

The following are the steps to be taken in order to update the MetaData file:

1. To refresh and reload the MetaData file, the administrator of this process first opens the MyEureka! MetaData Manager program.
2. The MetaData files are located the the W:\CA_MED\ANALYSIS\MYEUREKA! subdirectory. Each MetaData file, all of which have an .iqk extension, is located in the folder associated with the database phase and updated in which it was implemented. The most recent MetaData file is located in the folder with the most recent update. Note that each update will not require a modification to the MetaData, as each update will not have changes to DataScan fields.
3. For fields that are modified, delete them from the appropriate folders so that their properties may be refreshed.
4. New or modified table and column definitions from the DB2 tables are imported as follows:
 - Right click on the "Medi-Cal" Business View and select "Modify".
 - Under the "Load Parameters" option, select the appropriate Qualifier (e.g., HWDCHMPD) and User (e.g., HDHMSP2) for associated with the current DataScan tables. Also, select "Views" from the "Table Types" option.
 - Click on "Reload", and log into the appropriate DataScan database using RUMBA.
 - Select and import the Views that have been created or modified.
5. Length of new or modified summable fields must be expanded to avoid truncation.
6. Format of new or modified summable fields must include commas and dollar signs as appropriate.
7. New or modified custom fields, such as record counts and unique counts, must be programmed for each new folder following the template for other folders.
8. New or modified fields must be hidden if they are hidden in DataScan.
9. Links to descriptions for new fields with valid values in DataScan must be created as follows:
 - Lookup views for new fields with valid values in DataScan must be created in DB2 by the DBA in order to reference COL_LOOKUP table descriptions. Each new view is called V_LOOKUP_[PC FIELD NAME] and selects the valid values and descriptions from COL_LOOKUP for the field with the applicable PC FIELD NAME. The field for valid values is converted using a DB2 scalar function to set the lookup in a format congruent with the corresponding DataScan field.

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- Select the "Hide" option for the new view from the folder properties.
- Copy and rename the "Description" field of the new V_LOOKUP into the "Descriptions" folder, and rename the field to "[PC FIELD NAME]_DESC".
- Using the "Relationships" section of the MetaData, a join must be created between applicable new fields and their lookup tables or views.

10. Fields that no longer exist must be hidden or deleted.

11. The Metadata file, MEDICAL.IQK, resides on each user's workstation in the C:\MYEUREKA\REPORTADMINISTRATOR subdirectory. The location and name of the file is noted in the Default MetaData File box in the Tools-Preferences-Connection menu in MyEureka! This file is placed onto each users' workstation as part of the roll-out process of the MIS/DSS. Subsequent changes to the Metadata file will be propagated via the ReportServer, using the menu option in the Metadata manager to post the updated .iqk file to the ReportServer.

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1.9 Exit Criteria

This process is a continuous cycle and will not be exited unless the database and applications have been decommissioned.

1.9.1 Exit Exception Criteria

None.

1.9.2 Exit Exception Handling

None.

1.10 Forms and Subject Examples

All MetaData materials are kept under the W:CA_MED\ANALYSIS\MYEUREKA! subdirectory.

1.11 Reference Material

The Configuration Manual includes a description of the MetaData customizations. In addition, the MetaData Manager includes a comprehensive on-line help feature.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
05/05/2000	Robert Joy	Policy/Process Established
3/9/2000	Robert Joy	Reviewed for errors/ommissions
3/9/2000	Robert Joy	Modified .iqk propagation via the ReportServer

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1. Server Hardware Configuration

1.1 Overview

Some of the MIS/DSS applications utilize NT servers for their interactive use as well as the installation/update of their respective databases. In addition, two additional special purpose servers service the project need for batch execution of MyEureka! queries and server back-ups. The following servers are housed and maintained at the Health and Human Services Data Center (HHSDC):

IQSS1 – MyEureka Report Server
PAN1 – Panorama View Build Server
PAN2 – Panorama View Client Interactive Server
PMW1 – Performance Measurement Workstation Build Server
PMW2 - Performance Measurement Workstation Client Interactive Server
ARCSRV1 – ArcServeIT Backup Server

1.2 Purpose

This document describes the current hardware configurations on the project NT workstations.

1.3 Scope

This document describes the processes affecting the project NT servers.

1.4 Responsibility and Enforcement

The Tech Support manager is responsible to ensure that this document accurately describes the current Server Hardware configurations and that the maintenance processes described in herein are performed.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

Individuals carrying out this process should have a minimum of 2 years hands-on Network Support experience and similar experience with troubleshooting and resolving Hardware/Software issues on NT platforms. Completion of the MCSE is preferred.

1.7 Entry Criteria

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This process is entered any time an individual needs to check the configuration settings for the MIS/DSS NT Servers.

1.8 Procedure Steps

1.8.1 Installed Server Hardware Configurations

This process documents the NT Server configurations; as such, there are no real procedure steps associated with carrying out this process..

1.9 Exit Criteria

This process is exited after the NT configuration settings have been reviewed.

1.9.1 Exit Exception Criteria

None

1.9.2 Exit Exception Handling

None

1.10 Forms and Subject Examples

The name, location, hardware configuration and software configuration for each of the MIS/DSS NT servers is documented below.

1.10.1 Panorama View Server #1 (PAN1)

Located at HHSDC

Serial Number D908BYD10095

MAC Address 00-80-5F-19-61-36

1.10.1.1 Hardware Configuration:

1. CPU/Memory

Compaq 6000r Proliant rack mounted server with four 450 Mhz Pentium Pro processors, 1024 Kb cache, 2 Gig of DIMM Random Access Memory

2. Storage Devices:

- Compaq 32 bit integrated SCSI Controller for:
No attached devices
- Adaptec 154x PCI SCSI Controller for:
VDS Echo MS-8400 Intertape 3490 Multi-Tape Tower Drive
- Smart 3100es hardware array adapter slot 11 for:

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Internal drive cage containing 12 – 18.2 gig drives (RAID 5 +spare)

**Total Array is 218.4 Gig.

**After RAID 5 is applied there is approximately 191 Gig of drive space.

- Smart 3200 hardware array adapter slot 5 for:
One external array devices with 12 available drive slots
Array has ten 9.1 Gig Compaq SCSI hot swappable drives
**Total Array is 91 Gig, one drive is set as a spare leaving 81.9 Gig available.
**After RAID 5 is applied there is approximately 72.8 Gig of drive space.
- Smart 3200 hardware array adapter slot 6 for:
Array one has twelve 9.1 Gig Compaq SCSI hot swappable drives
Array two has twelve 9.1 Gig Compaq SCSI hot swappable drives (one assigned spare)
**Total Array is 218.4 Gig, one drive is set as a spare leaving 209.3 Gig available.
**After RAID 5 is applied there is approximately 191 Gig of drive space.
- Smart 3200 hardware array adapter slot 7 for:
Array one has twelve 9.1 Gig Compaq SCSI hot swappable drives
Array two has twelve 9.1 Gig Compaq SCSI hot swappable drives (one assigned spare)
**Total Array is 218.4 Gig, one drive is set as a spare leaving 209.3 Gig available.
**After RAID 5 is applied there is approximately 191 Gig of drive space.
- Smart 3200 hardware array adapter slot 5 for:
One external array devices with 12 available drive slots
Array has ten 9.1 Gig Compaq SCSI hot swappable drives
**Total Array is 91 Gig, one drive is set as a spare leaving 81.9 Gig available.
**After RAID 5 is applied there is approximately 72.8 Gig of drive space.
- Smart 3200 hardware array adapter slot 5 for:
One external array devices with 12 available drive slots
Array has ten 9.1 Gig Compaq SCSI hot swappable drives
**Total Array is 91 Gig, one drive is set as a spare leaving 81.9 Gig available.
**After RAID 5 is applied there is approximately 72.8 Gig of drive space.

3. Tape Drive Device

- VDS Echo MS-8400 Intertape drive (3490 Multi-Tape Tower Drive)

4. Monitor, Mouse and Keyboard via switch box

- Compaq v50 15 inch plug-n-play
- Compaq 101 enhanced Keyboard with built in Track ball

5. 3.5 inch floppy drive

6. Compaq CD-ROM drive

1.10.1.2 Software Configuration:

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: Server Hardware Configuration	
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1. NT 4.0 Server 5 user license w\ SP5
2. Diskkeeper 4.0
3. Winzip 7.0
4. InterTape 2.3
5. PCAnywhere 8.0
6. Pilot DSS 5.2
7. Syncsort for NT 1.0
8. DB2/UDB for Workgroup
9. St. Bernard OFM agent

1.10.2 Panorama View Server #2 (PAN2)

Located at HHSDC

Serial Number D818BHL10014

MAC Address 00-80-5F-31-D4-24

Hardware Configuration:

1. CPU/Memory

Compaq 5000 Proliant Tower server with four 200 Mhz Pentium Pro processors, 512 KB cache,
1.1 Gig of DIMM Random Access Memory

2. Storage Devices

- Compaq 32 bit integrated SCSI Controller for:
Two 4.3 Gig SCSI drives mirrored as C:\ drive
DAT 4mm SCSI Tape drive
- Smart 2/P hardware array adapter for:
External Array device with 7 available drive slots
Array has seven 9.1 Gig Compaq SCSI hot swapable drives
**Total Array is 63.7 Gig.
**After RAID 5 is applied there is approximately 55.6 Gig of drive space.

3. Tape Drive Device

- HP DAT 4mm Tape drive

4. Monitor, Mouse and Keyboard via switch box

- Compaq v50 15 inch plug-n-play
- Compaq 101 enhanced Keyboard with built in Track ball

5. 3.5 inch floppy drive

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6. Compaq DC-ROM drive

1.10.2.1 Software Configuration:

1. NT 4.0 Server 5 user license w\ SP5
2. Pilot DSS 5.2
3. Diskeeper 4.0
4. Syncsort for NT 1.0
5. Winzip 7.0
6. InterTape 2.3
7. PCAnywhere 8.0
8. St. Bernard OFM agent

1.10.3 Performance Measurement Workstation Server #1

Located in HWDC at 1651 Alhambra in the Alhambra Plaza

Serial Number

MAC Address

Hardware Configuration:

1. CPU/Memory Compaq ML530r Proliant rack mounted server with two 800 Mhz Pentium III Xeon processors, 256 KB L2 cache, 1 Gig of DIMM Random Access Memory.
 2. Array Smart 2/DH hardware array adapter port 3 for:
 - Two 9.1 gig SCSI drives set as mirrored set for C:\ containing NT 4.0 on FAT16 partition. These two mirrored 9.1 gig drives are partitioned into a 4 gig and a remaining 4.5 gig drives. The first 4 gigs act as C:\ Drive for the NT operating system, the remaining drive is used as S:\ to contain a large Pagefile.sys swap file.
 - One external array device with 7 available drive slots has seven 18.2 Gig Compaq SCSI hot swappable drives **With RAID 5 applied total drive array has 109.2 Gig available as drive E:\
 - Smart 2.DH hardware array adapter port 4 for:
 - Two external array device with 7 available drive slots, each array has seven 18.2 Gig Compaq SCSI hot swappable drives **With RAID 5 applied total drive array has 225 Gig available. 25 Gig is used as Drive D:\ and the remaining 200 Gig is used as F:\.
 - Adaptec 2944UW SCSI adapter with 68 pin external, 68 pin internal, and Wide SCSI 3 internal connections available. Supports VDS Echo MS-8400 tape drive
- Tape Drive Device
- VDS Echo MS-8400 tape drive (3490 Multi-Tape Tower Drive)
3. Monitor, Mouse and Keyboard via switch box
 - Compaq v50 15 inch plug-n-play

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- Compaq 101 enhanced Keyboard with built in Track ball
- 4. 3.5 inch floppy drive
- 5. Compaq DC-ROM drive

1.10.3.1 Software Configuration:

1. NT 4.0 Server 5 user license w\ SP5
2. SQL 7.0 Server 25 user license w\ SP1
3. Diskeeper 4.0
4. Winzip 7.0
5. PCAnywhere 8.0
6. St. Bernard OFM 6.3 agent
7. SyncSort 2.0
8. Perl

1.10.4 Performance Measurement Workstation #2

Located at HHSDC

Serial Number D721HWR10072

MAC Address 00-80-5F-BE-3A-89

1.10.4.1 Hardware Configuration:

1. CPU/Memory

- Compaq 5000r Proliant rack mounted server with two 200 Mhz Pentium Pro processors, 512 KB cache, 1 Gig of DIMM Random Access Memory.

2. Array

- Internal integrated Compaq 32 bit SCSI-2 controller for:
HP DAT 4 mm tape drive
- Smart 2/DH hardware array adapter port 5 for:
Two 2.1 gig SCSI drives set as mirrored set for C:\ containing NT 4.0 on FAT16 partition.
Three 18.2 Gig drives are in the internal drive cage one 18.2 is drive D:\ the second and third are extended volume set for 27 Gig as drive E:\.
One external array device with 8 available drive slots
Array has eight 36.4 Gig Compaq SCSI hot swapable drives
**With RAID 5 applied total drive array has 244 Gig available
The Array is partitioned into drive D:\ = 17 gig, Drive E:\ = 27 gig, and Drive F:\ = 244 gig.

3. Tape Drive Device

- HP DAT 4 mm tape drive

4. Monitor, Mouse and Keyboard via switch box

- Compaq v50 15 inch plug-n-play
- Compaq 101 enhanced Keyboard with built in Track ball

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5. 3.5 inch floppy drive

6. Compaq DC-ROM drive

1.10.4.2 Software Configuration:

1. NT 4.0 Server 5 user license w\ SP5
2. SQL 6.5 Server 25 user license w\ SP5a
3. Diskeeper 4.0
4. Winzip 7.0
5. PCAnywhere 8.0
6. St. Bernard OFM agent

1.10.5 IQ SmartServer

Located at HHSDC

Serial Number: D849CFX10316

MAC Address 00-80-C7-33-BC-F8

1.10.5.1 Hardware Configuration:

1. CPU/Memory

- Compaq 1600r Proliant rack mounted server with one 450 Mhz Pentium Pro processors, 512 KB cache, 524 MEG of DIMM Random Access Memory

2. Storage Devices:

- Compaq 32 bit integrated SCSI Controller for:
Bus 1 Port 1 has 2 - 4.3 Gig non-Hot Swap SCSI Drives
Bus 1 Port 2 has 3 - 9.1 Gig Hot Swap SCSI Drives

3. Monitor, Mouse and Keyboard

- Compaq v50 15 inch plug-n-play
- Compaq 101 enhanced Keyboard
- PS/2 Style Compaq Mouse

4. 3.5 inch floppy drive

5. Compaq CD-ROM drive

1.10.5.2 Software Configuration:

1. NT 4.0 Server 5 user license w\ SP5
2. MyEureka 6.3 Smart Server
3. MyEureka 6.1 Report Designer
4. PCOMM 4.3.1
5. DB2 E for Workgroups

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6. Diskeeper 4.0
7. Winzip 7.0
8. PCAnywhere 8.0
9. St Bernard OFM agent

1.10.6 Arc Server Back-up

Located at HHSDC

Serial Number D912CPW1D119

MAC Address 00-80-C7-33-BC-F8

1.10.6.1 Hardware Configuration:

1. CPU/Memory

- Compaq 1850r Proliant rack mounted server with one 450 Mhz Pentium Pro processors, 512 KB cache, 64 MEG of DIMM Random Access Memory

2. Storage Devices:

- Compaq 32 bit integrated SCSI Controller for:
Bus 1 Port 1 has 2 - 4.3 Gig non-Hot Swap SCSI Drives

3. Tape Drive

- Compaq 35/70 DLT tape library via Compaq Dual Channel SCSI adapter

4. Monitor, Mouse and Keyboard

- Compaq v50 15 inch plug-n-play
- Compaq 101 enhanced Keyboard
- PS/2 Style Compaq Mouse

5. 3.5 inch floppy drive

6. Compaq CD-ROM drive

1.10.6.2 Software Configuration:

1. NT 4.0 Server 5 user license w\ SP5
2. ArcServeIT 6.61 Advanced
3. St. Bernard OFM 5.3
4. Diskeeper 4.0
5. Winzip 7.0
6. PCAnywhere 8.0
7. St Bernard OFM agent

1.11 Reference Material

N/A.

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1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/24/00	John Mulcahy	Policy/Process Established
2/20/01	John Mulcahy	Updated for new PMW configuration.

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: Server Performance Monitor	
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1. Server Performance Monitoring

1.1 Overview

Panorama View (PV), Performance Measurement Workstation (PMW) and Report Server require a significant amount of processing power, memory, and storage capacity/retrieval speed to accomplish their tasks properly. MEDSTAT periodically monitors the servers involved with these applications to ensure that sufficient processor, memory, and storage capacity remain.

1.2 Purpose

This document describes the actions taken to monitor the project NT servers to ensure that have sufficient capacity to meet project needs for interactive usage and installations/updates.

1.3 Scope

This document relates only to the three applications (Panorama View, Performance Measurement Workstation and Report Server), that require NT servers to accomplish their interactive and install/update processes.

1.4 Responsibility and Enforcement

The Tech Support manager is responsible to ensure that this process is performed routinely as expected.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

Individuals performing this process must be versed in the interaction of processor availability, memory usage and DASD storage and able to distinguish impacts on one versus another.

1.7 Entry Criteria

This process is entered any time a monitoring process occurs on any project NT server.

1.8 Procedure Steps

1.8.1 CPU Utilization using NT Performance Monitor

Performance Monitor is a graphical tool for measuring the performance of any computer on a network. It provides charting, alerts, and reporting capabilities that reflect both current activity

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as well as an ongoing log. The log allows the capability to open, browse, and chart log files later as if they reflected current activity.

1.8.2 How to launch Performance Monitor

From Start, click on Programs, open the Administrative Tools menu. Click on Performance Monitor to launch the applet. Performance Monitor consists of four main windows, which you display by clicking Chart, Alert, Log, or Report on the View menu. These windows contain different information and have only the menu bar, status bar, and toolbar in common. The F1 key can be depressed to enable the Help for any Performance Monitor command. On the Options menu, Data From is available in any of the four windows. This command is used to switch from the current values against current activity (real time data) to a view where log files can be manipulated. The default is current activity.

To quit Performance Monitor, click Exit on the File menu. An individual chart, alert, log, or report settings or the entire workspace can be saved to a file prior to exit, this allows the exact combination of settings to be retained for future usage.

Note: You can monitor a remote server using Performance Monitor.

1.8.3 To monitor a different computer

1. On the Edit menu, click Add To.
2. In the Add to dialog box, enter the computer name in Computer. Or, click the button at the right end of the box to display the Select Computer dialog box, and select a computer name.
3. Double-click the name of the appropriate domain controller or workgroup to display a list of the servers and workstations connected to it.
4. Select the name of the server that you want to monitor, and click Add.

1.8.4 Settings to use when Monitoring NT Server

When monitoring a system, you are effectively monitoring the behavior of its objects. In the Windows NT operating system, an object is a standard mechanism for identifying and using a system resource. Objects are created to represent individual processes, sections of shared memory, and physical devices. Performance Monitor groups the counters by object type. A unique set of counters exists for the processor, memory, cache, hard disk, processes, and other object types that produce statistical information. Certain object types and their respective counters are present on all systems. However, other counters, such as application-specific counters (such as Exchange), appear only if the computer is running the associated software.

Each object type can have several instances. For example, the Processor object type will have multiple instances if a system has multiple processors. The PhysicalDisk object type has two instances if a system has two disks. Some object types, such as Memory and Server, do not have instances. If an object type has multiple instances, each instance may be used with the same set of counters. The data is then tracked for each instance. Two object types, Process and Thread, have a particularly close relationship. A Windows NT process is created when a program runs.

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A process may be either an application (such as Microsoft Word or Corel Draw), a service (such as Event Log or Computer Browser), or a subsystem (such as the print spooler or POSIX). In addition to an executable program, every process consists of a set of virtual-memory addresses and at least one thread.

Threads are objects within processes that execute program instructions. They allow concurrent operations within a process and enable one process to simultaneously execute different parts of its program on different processors. Each thread running on a system shows up as an instance for the Thread object type and is identified by association with its parent process. For example, if Print Manager has two active threads, Performance Monitor identifies them as Thread object instances Printman ==> 0 and Printman ==> 1.

For MEDSTAT Build Servers the following objects are monitored:

➤ **Processor(s)**

% Processor Time on each CPU>> Processor Time is expressed as a percentage of the elapsed time that a processor is busy executing a non-Idle thread. It can be viewed as the fraction of the time spent doing useful work. Each processor is assigned an Idle thread in the Idle process which consumes those unproductive processor cycles not used by any other threads.

➤ **Processor(s)**

Interrupts/second>> Interrupts/sec is the number of device interrupts the processor is experiencing. A device interrupts the processor when it has completed a task or when it otherwise requires attention. Normal thread execution is suspended during interrupts. An interrupt may cause the processor to switch to another, higher priority thread. Clock interrupts are frequent and periodic and create a background of interrupt activity.

➤ **Memory**

Pages/Second>> Pages/sec is the number of pages read from the disk or written to the disk to resolve memory references to pages that were not in memory at the time of the reference. This is the sum of Pages Input/sec and Pages Output/sec. This counter includes paging traffic on behalf of the system Cache to access file data for applications. This value also includes the pages to/from non-cached mapped memory files. This is the primary counter to observe if you are concerned about excessive memory pressure (that is, thrashing), and the excessive paging that may result.

➤ **Logical Disk**

Average disk Queue Length >> Average Disk Queue Length is the average number of both read and write requests that were queued for the selected disk during the sample interval.

1.8.5 Performance Monitor Usage

NT Performance Monitor is used during the installation/update process of MEDSTAT Database Applications. The information gathered is useful when verifying the performance of a server during high stress and resource intense processes. Performance Monitor can be set to log

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continuously during the build. MEDSTAT has opted to run Performance Monitor and take periodic snap shots during builds. The data collected is exported and then imported to an MS Excel spreadsheet. The spreadsheet allows us to monitor for trends. To export data to a spreadsheet or database program:

1. On the File menu, click Export. The Performance Monitor - Export As dialog box appears.
2. In Save as, click either Export TSV Files (*.tsv) or Export CSV Files (*.csv).
3. Enter a path name (including the appropriate extension for the column delimiter) for the file that you want to export, and click Save.

You can now open the exported file from within your spreadsheet or database program.

Note: Tabs separate the columns in TSV files. Commas separate the columns in CSV

1.9 Exit Criteria

This process may be exited upon successful completion of each step in the procedure.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

N/A

1.11 Reference Material

N/A.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/10/00	John Mulcahy	Policy/Process Established

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1. Server System Software Maintenance

1.1 Overview

Some of the MIS/DSS applications use NT servers for interactive use as well as the installation/update of their respective databases. In addition, two additional special purpose servers service the project need for background execution of MyEureka! queries and server back-ups. These servers require periodic updates to the system software (i.e., FirmWare) that controls the execution of instructions. These updates result from software patch releases provided by the hardware vendor that are specific to a particular server type and model.

1.2 Purpose

This document describes the maintenance activities that are performed to minimize the risk of server downtime and resolve known issues or add enhanced functionality for the server bios.

1.3 Scope

This document describes the processes affecting the project NT servers only.

1.4 Responsibility and Enforcement

The Tech Support manager is responsible for ensuring that this document accurately describes the current Server Hardware configurations and that the maintenance processes described in herein are performed.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

Individuals carrying out this process should have a minimum of 2 years hands-on Network Support experience and similar experience with troubleshooting and resolving Hardware/Software issues on NT platforms. Completion of the MCSE is preferred. There is an ASSUMPTION that the NT Server Installation is done by someone with prior advanced NT 4.0 Server experience.

1.7 Entry Criteria

A quarterly Smart Server subscription CD is distributed by Compaq. This CD contains software patches. Recognition of a BIOS firmware patch on this CD initiates this process.

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1.8 Procedure Steps

1.8.1 Server Installation of Upgrade Software

This section provides step by step instructions for updating BIOS firmware on an existing Windows NT 4.0 Server onto Compaq hardware. Server Software Periodic Maintenance Compaq periodically releases updated Smart Start and Server Management CD's. Each new release contains updates for the ROM BIOS and hardware firmware of the Compaq Servers. Inserting the Smart Start CD into the CD-ROM drive will launch the Diskette Builder applet. The affected servers are determined and Options Rompaq and System Rompaq diskettes are generated from the CD for each system. Quantity of diskettes required will vary depending on the CD release. The following are the steps to install the patch:

1. After the diskettes are created, recycle the server several times to complete the Rompaq updates. It is recommended that a full backup of all data should be residing on the server. Notify users of potential impact to access on servers.
2. Shut down and power back on the server with the System Rompaq diskette in drive A:\. Follow instructions carefully during the update. When complete the user will be instructed to recycle the server power. Insert disk one from the Options Rompaq set. Follow instructions carefully for all diskettes in the set. Each diskette will search the system and determine if the hardware firmware is the current version. If the hardware is not current, an option will be offered to upgrade. A backup of the current firmware will be stored back to the diskette if the upgrade option is chosen. DO NOT, for any reason, shut down the power of the server during a firmware upgrade.
3. When steps 1 and 2 are completed, remove all diskettes and recycle the server. Watch during the reboot for the F10 prompt (system configuration) and press F10. The System Configuration will need to be executed to allow the BIOS to recognize newly upgraded hardware. Reboot server to NT.
4. It may be advisable to return to the Smart Start CD once you have logged into NT. There are NT Software Updates available on the new release CD's. Insert the CD and cancel the Diskette Builder applet when it opens. Launch NT Explorer and browse to the drive for the CD-ROM. On the root of the CD you will find a CPQSUPSW (Compaq Support Software) folder. Within this folder, locate the NTSSD folder for an NT 4.0 Server. Double click Setup.exe to launch the applet, then locate the specific hardware component you want to update and click Install. The "Express" feature will allow the installer to have a list of available components presented for updates. When complete reboot the server.
5. In the event that a hardware failure is suspected, follow these steps:
 - Press F10 at boot up and select the "Hardware Diagnostics" Utility.
 - Select the specific hardware you want to test and which feature to test.
 - Follow on-screen options to setup the number of loops for testing.

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- Have test errors write to A:\ and insert a blank floppy.
- Contact Compaq Tech Support for replacement of parts and further troubleshooting instructions.

1.9 Exit Criteria

The Procedure Steps in section 1.8.1 have been successfully completed.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

N/A

1.11 Reference Material

N/A.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/24/00	John Mulcahy	Policy/Process Established

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: Source Code Promotion & Approval	
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1. Source Code Promotion and Approval

1.1 Overview

The Management Information System and Decision Support System (MIS/DSS) applications interact with the Medi-Cal Department of Health Services (DHS) Health Data Warehouse. In order to support these applications, modifications to components are required to resolve issues or to enhance functionality. Modifications can be made by one of two development teams:

- 1) Locally (Medi-Cal) for customized components
- 2) Remotely (Ann Arbor) for Core Product components

MEDSTAT Medi-Cal met with DHS and the project Audit team (Logicon) and agreed to implement enhanced manual processes to oversee the implementation of new or modified components. This Process addresses three primary areas:

- 1) The documented and centralized check-in/check-out of components for modification and
- 2) The implementation of code review/approval processes during the promotion of components from the development to production environments
- 3) The implementation/maintenance of migrated components into production

The successful implementation of this standard process will be accomplished by the compliance of staff in the completion of documentation and adherence to the process steps outlined below.

1.2 Purpose

This process denotes the necessary steps that development staff conduct to ensure a consistent means of migrating changed components into the working environment.

1.3 Scope

This process covers all components utilized in the Mainframe environment.

1.4 Responsibility and Enforcement

The Development Manager is responsible to ensure that this process is used for all project component changes.

1.5 General Considerations

There are no general considerations for this process.

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1.6 Skill Requirements

A user of this process would be an experienced developer familiar with the project COBOL and JCL Guidelines.

1.7 Entry Criteria

This process is entered any time a component is added or modified for the Mainframe environment.

1.8 Procedure Steps

The process includes procedures to:

1. Check-out project components
2. Review, approve, promote, and check-in new or modified components

1.8.1 Checking-out Project Components

The addition of new components or modifications to existing components will be documented *by the responsible developer* on the affected component list for the respective Investigation Request (IR).

Information that will be entered for each component impacted by the IR includes:

1. Component Type (e.g., Capitation source module)
2. Component Name
3. Owner
4. Completion Status

The *responsible Developer/DBA* will copy their version of all components needed for their respective effort from the current production versions. Under no circumstances will previous test modules be used as initial items for potential change. If multiple changes are required by more than one *responsible Developer/DBA*, there will be a joint responsibility to coordinate the change implementation. It is critical, in a production support environment, that all change occur in harmony with existing functionality and that regression to a lesser state of functionality not occur.

As a rule, MEDSTAT tries to ensure that only a single developer makes changes to a particular component for the duration of time until migration occurs. In the unlikely event that two developers are tasked with changing the same component at the same a check the development manager will be tasked with identifying the situation via a component report in the IR tool and will request that the developers coordinate their respective changes and testing.

1.8.2 Review, approval, promotion, and check-in new or modified components

At the time that a development/dba staff member completes modification efforts required to complete their assigned tasks on an Investigation Request (IR), *they* will generate the following items:

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1. Component Check-In Promotion Request Form (generated by the IR tool – described in section 1.8.1) for all impacted components
2. Copies of comparison differences generated by a compare utility (see section 1.8.2) indicating new, modified, or deleted line between the check-in candidate and the present production version of the component
3. Copies of all affected components will be moved to the appropriate migration library.

The **responsible developer/DBA** will request and conduct a walkthru of the changes indicated by the comparison process with a peer developer, the responsible Data Manager, and their respective managers. The meeting will ensure that the intended design specification was met and that all changes comply with the MEDSTAT Medi-Cal COBOL code and JCL standards. In addition, the reviewers will ensure that only the requested changes required for the enhancement or issue resolution are present and that no unplanned change will occur once the components are migrated. If all items meet the standards and the change is acceptable, the reviewers will denote approval on the migration request form.

Once all approvals are obtained, the **responsible Developer/DBA** will submit his/her promotion request form to the **operations librarian** for promotion of the affected components. The **librarian** will not promote items unless approvals are present on the migration document. If the approvals are present, the **librarian** will promote (move) the requested modules by close of business (sooner if indicated on promotion form as an emergency promotion) on the date indicated and will forward a confirmation (E-mail) of completion back to the requestor. The **librarian** will then compile/recompile source code modules indicated upon the request form. The **librarian** will request assistance from the **responsible Developer/DBA**, in the event that a clean compilation is not obtained. The **librarian** will perform all DB2 binds/rebinds indicated on the promote request. Similarly, if the process is unsuccessful, the librarian will seek resolution assistance from the **responsible Developer/DBA** making the promote request.

Once a promotion has successfully occurred for a production component, the **responsible Developer/DBA** will be tasked with removal of all old versions of components from test libraries. In addition, if the change occurred to a source module or copybook, the **responsible Developer/DBA** will generate a hardcopy listing and file it in the centralized files.

1.8.3 Reconciliation of Product Release Package contents with Promotion Requests

On the day prior to the release package implementation date, the Librarian will print out the “Affected Components Report” for the designated package via the option in the IR tool. This list will be compared to the Component Check-In Migration Request Forms to identify any missing component migrations. This information will be provided to the Operations and Development managers for resolution.

1.9 Exit Criteria

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This process may be exited upon reconciliation of the Product Release Package with the promotion requests.

1.10 Forms and Subject Examples

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Production Promote Request

JR #:		Request #:	
Name	Date Requested	Phase Number	
Special Instructions:			
Library Qualifier (From)		Library Qualifier (To)	
		Production	
Member Name	Library Type	DB2 or Non DB2	
This Section for Production Control Use			
Completed By:		Completion Date:	

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1.11 Reference Material

Operations Library Structure and Management Process

1.12 History

Established/Revision Date	Established/Revised By	Change Description
4/24/00	John Mulcahy	Policy/Process Established
6/20/01	John Mulcahy	Added promotion report to report examples section

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1. Stratification Extraction

1.1 Overview

The volume of data included in the Medi-Cal MIS/DSS is extremely large. In order to make and test substantial changes in the conversion programs and jobs that create the warehouse, MEDSTAT has developed a set of programs that stratify (randomly select) input Eligibility and Claim files in order to provide a viable means to sufficiently test the design with a smaller set of data.

1.2 Purpose

This process describes the efforts required to “pull a stratified extract” from production data feeds to develop a representative test base of reasonable size for testing.

1.3 Scope

This process applies to test base testing after phase 4 of the Medi-Cal project. Past experiences with stratification have included efforts to weight samples relative to particular new types of data that were encountered as part of a new project phase. As all types of data are now in the warehouse, this effort has been simplified to become a random selection process of a given percentage (e.g., 2%).

1.4 Responsibility and Enforcement

The Analytic Team and Development team managers are responsible for conveying the usage and makeup of all stratified test to the Department project staff.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

Users of this process must be familiar with programming methods and basic statistical concepts.

1.7 Entry Criteria

This process is entered any time a test database is required with a representative sample.

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1.8 Procedure Steps

MEDSTAT has developed a process that:

1. Selects a random sampling frequency,
2. Applies the factor to the Eligibility records,
3. Extracts all claims from the input data for the identified recipients.

The following three sections describe the method used to accomplish each of these three processes.

1.8.1 Selection of Sample Frequency

MEDSTAT begins the process by analyzing the desired test base size (normally 10-12 million claims) and then performing analysis of recipient identifiers to the number of resultant claims. This analysis compares MEDSTAT's estimates of claims volume per eligible for previous databases against the input volumes of Eligibles. This information provides an approximate number of unduplicated eligibles that would yield the desired test base size. The number of unduplicated eligibles is then compared to the overall number in the input raw data set. A sample frequency factor is then calculated (e.g., to get the proper amount every n^{th} record must be selected). For example, for the Phase 5 test databases, the eligibility file was sorted by CIN, duplicates were removed, and every 50th CIN was selected for the stratification. Then all claims and encounters for those selected CINs were chosen. This resulted in a test database with just under 10 million claim and encounter lines. This factor is then fed to the MEDSTAT developed program MDU100 that selects every n^{th} based upon the input factor. This has created the "CIN List" for the test base.

1.8.2 Application of Sample Frequency Factor To Eligibility

The MEDSTAT developed program MDE004 accepts the values from the CIN List and extracts any and all records for each recipient ID from the input raw data Eligibility file. Once completed this Eligibility file becomes the input file during the installation or update process executed against the test base.

1.8.3 Application of Sample Frequency Factor To Claims

The MEDSTAT developed program MDU060 accepts the values from the CIN List and extracts any and all records for each recipient ID from the input raw data Claim file. Once completed this Claims file becomes the input file during the installation or update process executed against the test base.

1.9 Exit Criteria

This process is exited once files of unique eligibles and respective claims are generated that meet the desired testbase size. Iterations of the process may be required to optimize claim to eligible ratios depending upon the accuracy of inferences that MEDSTAT has postulated based upon ratios seen in previous databases. To date, the accuracy of these ratios has held and MEDSTAT has been able to achieve the desired volume on the first sampling cycle.

1.9.1 Exit Exception Criteria

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By agreement of the Project Director, the format and content of this policy/process may be deviated from standard.

1.9.2 Exit Exception Handling

The exception must be documented and agreed to by the Project Director.

1.10 Forms and Subject Examples

N/A.

1.11 Reference Material

N/A.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/10/00	John Mulcahy	Policy/Process Established

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1. Data Investigation

1.1 Overview

Data Investigation is the term used to describe activities associated with the research and analysis of data. The Data Investigation Process is the set of guidelines used to research and analyze new data input, unexpected results found in testing, and variations found in production validation and reporting trends. Each of these conditions provokes questions about the data that should be answered to ensure that the MIS/DSS conversion and data enhancement rules are valid and effective for the data in question, and to ensure user understanding of the impact of data outliers in the MIS/DSS database.

When a new data source will be submitting raw data input to the MIS/DSS database, the MEDSTAT *Data Investigation Guidelines* activities should be done for each of the *Standard Field Types* available. These activities will help to reveal unexpected field values and data formats. If unexpected values or formats are found in the new data it may raise questions about the conversion rules for the new data. These questions should be addressed to ensure the correct interpretations of the new data; and, if necessary, design modification may be considered once the new data is understood.

When system testing and database validation tests do not meet the expected results, questions arise about the root cause contributing to the unexpected findings. Data Investigation activities can help to answer these questions and help to identify the steps that should be taken to mitigate or at least communicate the impact of any data issues that may be found.

And, when there are variances found in the data during the validation and trending of the routine update processes, questions will also arise. The client will need assurances as to whether or not the anomaly in the trends are due to the data or in the system. Again, Data Investigation can help to identify where the anomaly is and, ultimately, what steps can be taken to mitigate the impact of the issue.

Anytime there is a question about the data, it is important to document the question and the steps taken to answer the question. For new data sources, we look for standard data values and formats, if the standards are not found, or if testing and/or trending reveal unexpected findings then we do further research that is tracked and documented in a Data Investigation Database. The data Investigation Process document refers to the MEDSTAT *Data Investigation Guidelines* for specific direction for the *Standard Field Types* process. This document will provide direction on when and how to use the Data Investigation Database to track the research and findings of Data Investigation activities. This document will also provide general guidelines and resource references that are associated with the process of Data Investigation for the Medi-Cal MIS/DSS Project.

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1.2 Purpose

The purpose of this document is to provide a standardized means to prepare, perform, and document the data investigation process.

1.3 Scope

This document applies to the data investigation performed by a Data Manager.

1.4 Responsibility and Enforcement

The Data Management team is responsible for performing data investigation.

1.5 General Considerations

Data Investigation could be different with each research request that is identified. Data Investigation activities can easily take on a life of their own with endless hours of information gathering taking place. It is important, therefore, to set the scope of each Data Investigation activity before it is launched. The individual tasked with the Data Investigation activity, the investigator, must clearly understand the question that must be answered, the data available with which to perform the research, and the individuals and tools with which to work to successfully bring closure to a request for Data Investigation.

Factors that will impact the Data Investigation Process include: the volume of data, the rate of occurrence of the data issue, the skill level and tools available to the investigator, and the importance of the data to the client in their MIS/DSS database.

On the Medi-Cal MIS/DSS Project the raw data input files are received on tapes, and the claims and eligibility files are especially large. We typically use COBOL programs or SAS to examine these files. The other input files are smaller and more flexibility can be used in how the data is investigated.

Earlier in the project, 'DQI' (Data Quality Investigation) COBOL programs were written to help to quickly evaluate new data for the Capitation, Claims, and Eligibility input. It is worth the effort to fine tune these DQI programs, when there are record layout changes or if certain design rules change, because they help to quickly assess new raw data input for the standards we expect in critical fields.

1.6 Skill Requirements

The skills required to perform the Data Investigation Process are:

- Basic knowledge of TSO
- Familiar with Access Databases
- Knowledge of SAS to query raw data

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- Familiarity with Medi-Cal data
- Familiarity with DQI, Edit, Splitter, and other Build Reports

1.7 Entry Criteria

The Data Investigation Process can begin with either the receipt of new raw data input, or by finding unexpected results in testing, or by finding variations in production validation and reporting trends, or in some cases when questions are raised by the client or members of the project.

A task should be opened in the Data Investigation Database, to define the scope of the research, before the investigation activities begin.

1.8 Process Steps

There are slightly different process steps for Data Investigation activities for *New Data From a New Data Source* than for the Data Investigation process used against previously ‘known’ data. Therefore, these two process steps are outlined separately.

1.8.1 New Data From a New Data Source Data Investigation Steps

1. Receive a sample file of the new data from the new data source (typically a full month of update data for the new data source).
2. Operations runs ‘Turnaround Report’ and loads file to the mainframe (or the LAN).
3. A Data Investigation Task is opened in the Data Investigation Database. This will usually be done by the DM responsible for the research of the lead DM.
4. Assign an investigator - this is usually a member of the DM team.
5. Download the data to either a file on the mainframe or on the LAN so that it is in usable format for Data Investigation activities – this will be facilitated by the investigator and may involve assistance from operations staff or the developers.
6. If the input is F35 Claims data, run the DQI COBOL programs. This will be facilitated by the investigator and will be executed by the developers. The Pre-Split DQI programs are current for Phase 5 formats, the Post Splitter programs may need to have the record layout updated.
7. Run SAS queries using the *Standard Field Type Data Investigation* profiles for fields not evaluated by the DQI program. This is done by the investigator.
8. Document the Findings of the profiling queries in the Data Investigation Database. This is done by the investigator.

1.8.2 Data Investigation Steps – For Research other than New Data

1. Identify a Data Investigation Task in the Data Investigation Database detailing the *Question Asked*. This could be any project team member but most likely will be the lead DM or DM responsible for the specific area of the database system.

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2. Assign an investigator to the task. This is usually done by the lead DM.
3. Identify the best source data to use for the research (if not already selected by the individual who opened the DI task). This is done by the investigator.
4. Fill out the Data Investigation Database (see section 1.8.4). This is done by the investigator.
5. Conduct the research and analysis (see sections 1.8.3-1.8.6 for more information). This is done by the investigator.
6. Document the Findings (if necessary open an IR). This is done by the investigator.

1.8.3 Data Investigation of Standard Field Types

The MEDSTAT Standard Field Type Data Investigation Guidelines are found on the MEDSTAT Intranet at:

http://home.medstat.com/dmos/data_management/datainvestigation/guidelines.thm

The Standard Field Type guidelines address specific data formats, values and thresholds that should be found in each of the critical input fields used in the MEDSTAT applications. These include, but are not limited to, guidelines of when to run frequency distributions on categorical fields, min/max/sum on financial fields, how to look at critical date fields (service and paid dates), and value thresholds to look for in other critical CORE fields.

On the Medi-Cal MIS/DSS Project the findings of such research are stored in the Data Investigation Database. Techniques that may be used to conduct these Standard Field Type Data Investigation are discussed below.

1.8.4 The Data Investigation Database

The Data Investigation Database is maintained in an Access database on the LAN. The Data Investigation Database allows for easy tracking and referencing of Data Investigation activities and most importantly the research findings. Some components of the Data Investigation Database include: Question Asked, Method / Approach, and Findings / Recommendations, as well as, other data elements useful for the accessing and reporting of the Data Investigation information stored in the database. Currently, the Data Investigation database is stored in the following directory:

W:/Ca Med/Datamgmt/Phase 5/Data Investigation

The data elements stored in the Data Investigation Database are described below:

- **DL Item #:** This is a tracking number automatically assigned when a new Data Investigation task is opened.
- **Priority:** The priority of the Data Investigation task must be assigned by the user as either 1-High, 2-Medium, or 3-Low.

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- **Status:** The status of the Data Investigation task is maintained from the time the task is opened to the time that it is closed. The user selects the most appropriate status from the following options.
 - **Not Started:** This is the status used when the task has been opened but none of the activities related to the task have yet begun.
 - **In Progress:** The status used to indicate that the activities have been initiated. This status will remain until research findings have been identified.
 - **Closed – Future Action Required:** This is the status used to describe research that has been completed but that the findings reveal other non-Data Investigation activities that must take place.
 - **Closed:** This is the status used when the Data Investigation activities are complete, all findings are documented, and no other related actions are anticipated.
- **Investigator:** The initial of the individual to whom this Data Investigation task is assigned.
- **Date Open:** The date the Data Investigation task is opened.
- **Date Closed:** The date the Data Investigation task is assigned the status of Closed or *Closed-Future Action Required* (if used).
- **Phase:** This is really two data elements to provide for the indication of the Phase the task is opened and the Phase the task receives a *Closed* status. Though phases were applicable only during the initial MIS/DSS contract period, the value in this field remains important.
- **IR Number:** If there is an IR to which the Data Investigation findings are relevant, that IR Number is stored in this field.
- **Analysis Data Used:** This is where we identify the data source (i.e., Production 4.3 or Testbase 5.1) from which the research is to be conducted. This may be more than one data source and multiple identifier can be stored.
- **Online File Location:** This is used to identify the specific Mainframe filename for the data source described above.
- **Input Field Name:** This is the tag name used for the specific field being investigated. This is only for fields on the raw data input.
- **PC Field Name:** This is the MIS/DSS database PC field name used after the raw data has been converted.
- **Table Name:** This is for the MIS/DSS database table that is impacted by the research.
- **Supporting Documentation:** This is used to identify where supporting documenting, relevant to the task, is stored.
- **Question Asked:** This is where the research task is described in detail. The research is typically triggered by an unanswered question about the data. But it may also be an instruction to gather or track a data statistic or it could be something else. The goal of the Data Investigation task should be made clear through the information placed in this database field.
- **Method / Approach:** The way in which the research is being done should be documented here. This documentation is intended to aid others that reference the database to understand 'how' the research was done. Understanding 'how' the research done is important so that the correct interpretations of the results can be made and if necessary it can be duplicated or slightly modified for other research.

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- **Finding / Recommendation:** The investigator should sum up conclusions derived from the research that is conducted. This should provide the answer to the *Question Asked* as well as what the next steps should be.

1.8.5 Data Investigation Input Files

There are nine input files that might be considered for Data Investigation. The table below identifies these input files used in the Medi-Cal MIS/DSS, as well as, Customer Data Dictionary available as a resource.

Input File	Data Medium	Target MIS/DSS Table	DED Available
F35-File	Tape	Claim Drug Case Episodes	Yes
MEDs File	Tape	Eligibility DHS Core Populations	Yes
Provider (Managed Care & Mental Health)	Tape	Provider Background Provider	Yes
PMF Provider (Medical & Dental Provider)	Tape	Provider Background Provider	Yes
Capitation	Tape	Capitation	
Managed Care Plan-Financial	Tape	Managed Care Plan Financial	
Managed Care Plan-Enrollment	Tape	Managed Care Plan Financial	
Managed Care Plan Member Months	Tape	Managed Care Plan Financial	

1.8.6 Data Investigation Guidelines and Techniques

In this section of the document we will discuss some general guidelines and techniques that can be used in Data Investigation. This document will not get into the detail of what specifically to look for in each data element, that is covered in the MEDSTAT Data Investigation Guidelines for Standard Field Types.

Raw Data Input-F35-File

SAS has proven to be the most effective utility to use to write queries against the larger raw data input files (provider, claims, and eligibility). If space is available and the input file is not too large, have the developers copy the Data Investigation file to disk, otherwise you can use the tape files to do your research.

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When looking at the F35-File, because this is a variable length record and because the records will ultimately be split between the Claim and Drug table, most Data Investigation is easier to do if the raw data input is run through the Splitter program. After being run through the Splitter, the record length becomes fixed, with the Header data replicated across every detail line. The records are split into two files, one that is targeted for the Drug Conversion and one targeted for the Claim conversion.

The developers can easily run the Data Investigation file through the Splitter program for the investigator. The investigator needs to remain aware of the impact of the Splitter process. In some cases, input claims may have some of the claim details split between the drug and the claim file (this will only happen for claims with Claim Type = 4). Another important thing to remember is that after the Splitter, the Header information is replicated on every claim detail record, therefore, doing totals on the Header Financials would be misleading. The investigator should only use the first detail segment when researching the Header Financial data from the output files from the Splitter program. For other information about how the Splitter process affects the input claim file see *The Splitter Background Document* functional specs.

There are also the DQI programs that can be run for the F35-File, the Eligibility, and the Capitation files. There are three DQI programs for Claims, one is Pre-Splitter, and the other two are Post Splitter, one for Drug one for Claim. The Pre-Split DQI has had the record layout updated for the Phase 5 changes, the other programs may need modification to the Phase 5 records layout. The Pre-split DQI is an excellent report to get a sense of the data on the Data Investigation file. This should be one of the first reports run when preparing to do Data Investigation on the F35-File. The Pre-Split DQI report produces distributions on Plan Code, Claim Type, County Codes, Aid Codes, Sex Codes, Medicare indicator, Invalid Check Dates, Totals of selected financial fields, Invalid Service Dates, and a few other distribution counts.

The DQI programs are documented in the DQI Workbook (see in Appendix 1.13—Open Data Investigation Items). Should any Data Investigation need to take place that the DQI programs already are coded to report, it *may* be easier to update the programs than to write new SAS queries. This is an option available to the investigator.

1.9 Exit Criteria

The Data Investigation Process is complete when the *Questions* posed in the Data Investigation Database have been answered and fully documented.

1.10 Forms and Subject Examples

None

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1.11 Reference Material

The following is a list of the reference material that can be very helpful when engaged in a Data Investigation activity:

- ❖ Functional Specs and DM Workbook
- ❖ DM Guide
- ❖ System Test Plans
- ❖ MIS/DSS Data Dictionary
- ❖ Medi-Cal Input File DEDs
 - F35-File
 - Encounter File
 - MEDs File
 - Managed Care Provider file
- ❖ Medi-Cal Provider Billing Manuals
- ❖ MEDSTAT Data Investigation Guidelines
- ❖ Production Reports:
 - FOLOGs
 - Unexpected Values
 - Production DQI
 - Production Edit Reports
- ❖ Investigative Requests (Irs)

1.12 History

Established/Revision Date	Established/Revised By	Change Description
4/20/2000	Julie Dittman	Established Process
6/18/2001	Todd Jackman	Corrected references to sections within the process and included the appendix material—DQI Workbook.
9/12/01	Carrie Swanson	Corrected parenthesis in Data Investigation of Standard Fields section.

1.13 Appendix – Open Data Investigation Items

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1 COL_LOOKUP Maintenance

1.1 Overview

The Column Lookup Table (COL_LOOKUP) is a DataScan support table. It provides information on field values and their descriptions for database fields. The DataScan interactive software allows users to access not only DataScan core data tables, but custom tables as well.

The COL_LOOKUP Table only has three columns:

- PC Field Name – Contains the PC Field Name value in the Alias field listed in EGAD
- Field Value – Contains the field value
- Field Description – Contains the description for the field value

The DataScan system accesses this table when users click on ‘Valid Values’ in the Help/Fields module. This module then lists the field values and their descriptions from the COL_LOOKUP Table. If the field is not in the COL_LOOKUP Table, ‘Valid Values’ are grayed out in the Help/Fields module.

Other modules accessing the COL_LOOKUP Table are:

- Help/Populations by Field
- Reports/Clinical/Inpatient and Outpatient
- Custom Reports
- PMW

Up to 2,000 field lookup values can be added for each custom field included in COL_LOOKUP. Every time COL_LOOKUP is modified, the new table is downloaded to the PC at logon.

1.2 Purpose

The purpose of this document is to create a documentation standard for the process of adding, changing, or deleting items from COL_LOOKUP.

1.3 Scope

This document applies to the addition, modification, or deletion of items from the COL_LOOKUP table by a Data Manager.

1.4 Responsibility and Enforcement

The Data Management team is responsible for adding, changing, or deleting items from the COL_LOOKUP table.

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1.5 Policy Statement

The objective of this procedure is to ensure all additions/changes/deletions are correctly implemented in the COL_LOOKUP Table.

1.6 General Considerations

Every time the COL_LOOKUP Table is modified, the new table is automatically downloaded to the PC when a user runs DataScan. Every 1,000 rows on COL_LOOKUP adds a minute or more of download time. With this in mind, every effort should be made to consolidate additions/changes/deletions to the COL_LOOKUP Table, so the table will not be downloaded as frequently to the users PC.

1.7 Skill Requirements

The skills required to perform the Col_Lookup Maintenance Process are:

- Basic knowledge of TSO
- Familiar with the IR Log

1.8 Entry Criteria

When an addition/change/deletion must be made to the COL_LOOKUP Table, the Data Manager initiating the change must open an Investigative Request (IR). The IR specifies the environment to change, what the change is, the effective date of the change, and any special instructions. The IR will go to Change Control for approval and then a task will be assigned to the person responsible for making changes to COL_LOOKUP.

1.9 Procedure Steps

The major activities of the process are described in detail.

1.9.1 Navigating to the COL_LOOKUP Maintenance Screen

- From the ISPF Primary Option Menu, type on the command line, 'h.db'.
- On the HWDC Data Base Products Main Menu, enter option '1 – DB2I/SPUFI' and either 'HMTD' or 'HMPD' for DB2 ID. Use 'HMTD' for Test environment and 'HMPD' for Production
- On the DB2I Primary Option Menu, type on the command line, 'tso mdstmenu'.
- On the MEDSTAT System Table Maintenance Menu, make sure the 'Current System Environment' is correct. If it needs to be changed, enter a 'D' for 'System Default Maintenance'. Change the environment and continue.
- To enter the Column Lookup Table Maintenance screen, enter a '7'.

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1.9.1.1 Adding a Row

- For 'Select Action', enter an 'A' to 'ADD row'.
- Type in the PC Field Name. This should be in all capital letters.
- Type in the Field Lookup Value. This field is limited to 14 characters. The value should be right-justified if it is a non-character field and left-justified if it is a character field.
- Type in the description, which cannot be more than 45 characters. The description will appear exactly as typed, with upper and lower case letters. Press enter.
- A message will display 'Add Successful'.

1.9.1.2 Modifying a Row

- For 'Select Action', enter an 'F' to 'FIND a row'.
- Type in the PC Field Name.
- Type in the Field Lookup Value. The value must be exact, with leading zeros and capitalization where necessary. If the field is non-character, the value must be right-justified. If the field is character, the value must be left-justified.
- Press enter and the description for that value will appear.
- Type over the existing description and press enter.
- A message will display 'Modify Successful'.
- Only descriptions may be modified. A Field Lookup Value cannot be modified. The incorrect value must be deleted and the new value added.

1.9.1.3 Deleting a Row

- For 'Select Action', enter an 'F' to 'FIND a row'.
- Type in the PC Field Name.
- Type in the Field Lookup Value. The value must be exact, with leading zeros and capitalization where necessary. If the field is non-character, the value must be right-justified. If the field is character, the value must be left-justified.
- Press enter and the description for that value will appear.
- Go back to 'Select Action' and enter a 'D' to 'Delete row'. Press enter.
- A message will appear asking for verification to delete.
- Press enter and a message will display 'Delete Successful'.

1.10 Exit Criteria

After additions/changes/deletions are made to the COL_LOOKUP Table, the person making the changes must mark the task as complete in the IR Log. The person initiating the addition/change/deletion must test it and document the results in the IR.

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1.11 Forms and Instructions

An IR must be completed by the person initiating the addition/change/deletion to COL_LOOKUP. The IR is then routed through Change Control for approval.

1.12 Subject Examples

1.13 Reference Material

The Data Management Guide

1.14 Policy History

Established/Revision Date	Established/Revised By	Change Description
5/8/00	Tina Poyner	Process Established
3/8/01	Carrie Swanson	Removed references to the 'Pink Sheet' which is no longer used.

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1 Updating EGAD

1.1 Overview

The Element Generation and Definition (EGAD) Table and EGAD Detail Table are DataScan support tables and serve as a data dictionary for the Case, Claims, Episode, and Population table as well as for non-core tables. There are two physical tables that carry the data dictionary. There is one maintenance panel for the two tables because they are one logical table.

The EGAD tables list and describe the fields in each table and control how the fields appear in the DataScan System. The DataScan interactive software allows users to access not only DataScan core data tables, but custom tables as well. All fields on non-core tables must be included in the EGAD tables.

The EGAD Tables should be reviewed and necessary changes made when:

- The field formats change for custom fields
- Users request changes to custom fields
- New custom fields are added to or removed from the database core or custom tables
- A DataScan version release impacts custom fields

Every time EGAD is modified, the new table is downloaded to the PC at logon.

1.2 Purpose

The purpose of this document is to create a documentation standard for the process of adding, changing, or deleting items from EGAD.

1.3 Scope

This document applies to the addition, modification, or deletion of items from EGAD by a Data Manager.

1.4 Responsibility and Enforcement

The Data Management team is responsible for adding, changing, or deleting items from EGAD.

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1.5 Policy Statement

The objective of this procedure is to ensure all additions/changes/deletions are correctly implemented in the EGAD Table.

1.6 General Considerations

Every time the EGAD Table is modified, the new table is automatically downloaded to the PC when a user runs DataScan. With this in mind, every effort should be made to consolidate additions/changes/deletions to the EGAD Table, so the table will not be downloaded as frequently to the users PC.

1.7 Skill Requirements

The skills required to perform the EGAD Maintenance Process are:

- Basic knowledge of TSO
- Familiar with the IR Log
- Familiar with the DM Workbook
- Familiarity with how fields are displayed in DataScan is helpful

1.8 Entry Criteria

When an addition/change/deletion must be made to the EGAD Table, the Data Manager initiating the change must open an Investigative Request (IR). The IR specifies the environment to change, what the change is, the effective date of the change, and any special instructions. The IR will go to Change Control for approval and then a task will be assigned to the person responsible for making changes to EGAD.

1.9 Procedure Steps

The major activities of the process are described in detail.

1.9.1 Navigating to the EGAD Maintenance Screen

- From the ISPF Primary Option Menu, type on the command line, 'h.db'.
- On the HWDC Data Base Products Main Menu, enter option '1 – DB2I/SPUFI' and either 'HMTD' or 'HMPD' for DB2 ID. Use 'HMTD' for Test environment and 'HMPD' for Production
- On the DB2I Primary Option Menu, type on the command line, 'tso mdstmenu'.
- On the MEDSTAT System Table Maintenance Menu, make sure the 'Current System Environment' is correct. If it needs to be changed, enter a 'D' for 'System Default Maintenance'. Change the environment and continue.
- To enter the EGAD Table Maintenance screen, enter an '8'.

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1.9.1.1 Fields on the EGAD Table Maintenance Screen

PC Field Name (PC_FLD_NAME)

- Use Uppercase Only
- Use three to eight characters
- Appears in the far right-hand side of the field listing box
- Core PC field names cannot be changed. The system will not allow a key field to be changed

PC Alias (PC_FLD_NAME_ALIAS)

- Indicates the PC field name used to identify valid values in COL_LOOKUP
- Allows COL_LOOKUP valid values to apply to more than one field. For example, the core field DRG may have the same values as a custom DRG field. The two DRG fields will have the same PC Alias to refer to one set of COL_LOOKUP values
- Most fields will have the same value in the PC Field Name and PC Alias

PC Field Short Description (PC_FLD_SHRT_DESC)

- Use uppercase and lowercase
- Use one to twelve characters
- Appears in column and row names for special reports

Print Format (PRINT_FORMAT)

- Indicates the print format of a field
- A = Printed as is without commas or decimals (e.g., EMPID)
- B = Commas and decimals added (e.g., NETPAY)

PC Field Long Description (PC_FLD_LONG_DESC)

- Use uppercase and lowercase
- Use one to thirty characters

Population Table Indicator (POP_TBL_IND)

- This column identifies population-supported fields
- A “Y” in this column means that a subset on this field on one of the core tables will also subset the appropriate populations

Edit Report (EDIT_MISSING_IND)

- Indicates if the Edit Report will show the percent “missing” for this field
- Y = Yes; N = No
- Only used for core columns on the Claims tables
- Custom fields should have an “N” in this column

Hidden (HIDDEN_FLD_IND)

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- Indicates if a field should be hidden from user access
- Y = Yes; N = No, A = Always
- Fields with a “Y” are accessible to users only if the USER_TYPE in the User Profiles table is set to “1”. The USER_TYPE field grant or denies access to hidden fields

Column Min (COL_MIN_VALUE)

- Indicates whether or not the value entered for a field should be checked against a range or valid values
- Details the minimum value for the field if it should be range-checked
- A zero indicates that the field should not be range-checked
- Financial fields which can have a negative value should show “-9999999”
- Other numeric fields which can have a negative value must show the lowest negative value
- All character fields should be zero

Column Max (COL_MAX_VALUE)

- Indicates whether or not the value entered for a field should be checked against a range of valid values
- Details the maximum value for the field if it should be range-checked
- A zero indicates that the field should not be range-checked
- Financial fields which can have a negative value should show “9999999”
- Other numeric fields which can have a negative value must show the largest positive value
- All character fields should be zero

Managed Care Break Indicator (MC_BREAK_IND)

- Meaningful only for Managed Care
- Indicates which categorical fields can be used as high-level row breaks in the Managed Care reports
- Examples are PRODUCT and ACCOUNT
- Default high-level break fields are NETWORK, PCPID, PCPTYPE, and PRODUCT
- A field must be population supported to be a high-level break
- Defined fields cannot be used as row breaks

Clinical Grouping Indicator (NRM_CLIN_GRP_IND)

- Core fields set to “Y” are DRG, MDC, PROCGRP, and TG
- Indicates which fields are clinical categories that can be used to build norms

Related Flags

- Indicates how fields are used by the DataScan system
- Y = Yes; N = No
- Flags are:

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- Pop Related – Denotes a field which affects rates calculations; if “Y” and not in the POPS table, a warning message appears when the field is included in subset rules
- Clinical Related – Denotes a field for which clinical reports are run; if “Y” and is included in subset rules, clinical reports will use DB_DEF assignment rates rather than calculate assignment rate based on current subset. Not used for custom fields
- Employee Related – Denotes a field which contains information about the employee; this is an information only field at present
- Financial Related – Denotes a field which contains dollars; if “Y”, can be used as the cost basis in Trend, IP Clinical and OP Clinical reports; do not use for custom fields which contain dollars
- Location Related – Denotes a field which contains geographic information; this is an information only field at present
- Patient Related – Denotes a field which contains information about the patient; this is an information only field at present
- Provider Related – Denotes a field which contains information about the provider; this is an information only field at present
- Time Related – Denotes a field which is date-oriented; this is an information only field at present
- Other Related – Denotes a field which is not related as mentioned above; this is an information only field at present

Table ID (TABLE_ID)

- Table IDs are:
- Indicates which table the field resides upon
- If a field is on any one of the IP, PI, OP, or PO tables, it must be on all four tables
 - CA = IP Case table
 - CP = Capitation table
 - C2 = Case2 table
 - DR = Drug table
 - DN = Dental table
 - EG = Eligibility table
 - EP = Episode table
 - IP = IP Service Detail table
 - MC = Managed Care table
 - OP = OP Service Detail table
 - PI = IP Service Detail w/ Pd table
 - PO = OP Service Detail w/ Pd table
 - OD = OP Service Detail w/o Dental table
 - PP = Populations table

DB2 Column Name (DB2_COL_NAME)

- Use uppercase only

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- Use less than 18 characters, preferably no more than 10
- Use an underscore (_) to divide words
- Does not appear in the DataScan interface
- Cannot be changed without alterations to Convert Programs

Field Type (FIELD_TYPE)

- Use uppercase only and spell out completely
- Valid values are:
 - CHARACTER
 - SMALLINT
 - DATE
 - TIME
 - DECIMAL
 - INTEGER
 - TIMESTAMP

Field Length (FIELD_LENGTH)

- If field type is CHARACTER, enter the number of characters
- If field type is DATE, enter 4
- If field type is INTEGER, enter 4
- If field type is SMALLINT, enter 2
- If field type is TIME, enter 8
- If field type is TIMESTAMP, enter 10
- If field type is DECIMAL, enter the number of bytes (calculated by dividing the number by 2 and adding 1. Disregard any halves (.5). Example: Display length is 7. Divide by 2 = 3.5. Add 1 = 4.5. Take off the .5. The storage length is 4. The storage length for a decimal field cannot be greater than 6
- Financial fields that do not carry pennies should always be DECIMAL 4

Core (CORE_COL_IND)

- Indicates if the field is a DataScan core field
- Y = Yes; N = No; Spaces = No

Stats Type (STATS_TYPE)

- Indicates what variation of statistics are allowed in the statistics module. Statistics should be limited to only those that are appropriate for the values stored in the field
- The valid values are:
 - A = All statistics available (decimal fields such as financial fields, DAYS or AGE)
 - B = Statistics involving sum of squares are excluded (this is for numeric fields that are categorical in nature)
 - C = Only number of observations, number of missing, and min/max are available (this is for character fields)

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Missing Rule (MISSING_RULE)

- 0 = This field cannot be missing
- 1 = Null is the missing value. Cannot use this rule for custom fields
- 2 = 0 (zero) is the missing value. Can only be used for INTEGER, SMALLINT, or DECIMAL fields
- 3 = Space (or blank) is the missing value. Can only be used for CHARACTER fields
- 4 = Field is one of the following:
 - Date: 0001-01-01 (ccyy-mm-dd) is the missing value
 - Time: 00:00 is the missing value
 - Timestamp: 0001-01-01-00.00.00.000000 is the missing value
- 7 = Field is a Cohort Type (COHORT). 13 is the missing value
- 8 = Field is a Procedure Group Code (PROCGRP). 499 is the missing value
- 9 = 9 is the missing value. Can only be used for INTEGER, SMALLINT, or DECIMAL fields
- 10 = -1 is the missing value. Can only be used for INTEGER, SMALLINT, or DECIMAL fields

Join Availability (JOIN_AVAILABILITY)

- Allows columns that physically exist on one linked table to be viewed on a Record List run on a table at a lower level in the link hierarchy. For example, the IP Case table is linked to the IP Service Detail table, and the field DAYS is present only on the IP Case table. Because DAYS is defined in EGAD with a “Y” in the Join Availability column, DAYS is accessible when the user performs a Record Listing on the IP Service Detail table
- Valid values are “Y” and blank. A “Y” in this column means that the field value is available during a Record Listing on lower link hierarchy levels. The option has no affect on columns in tables that are not part of a link hierarchy or on tables that are in the lowest position in a link hierarchy.

Index Sequence (INDEX_SEQ)

- Informational field only
- Notation that the field exists on an index
- The valid values are:
 - P = Primary Index (clustering index)
 - S = Secondary Index
- The number preceding the letter indicates that field is on the index
- The information entered into this field will show up in the field selection list box in Subsetting. If the list box is stretched, users can see the index sequence on the right-hand side of the list box. By looking for this information, the users can see which of the available fields are indexed

1.9.1.2 Modifying a Row

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- For 'Select Action', enter an 'F' to 'FIND a row'.
- Type in the PC Field Name. Press enter and the information for that field will appear.
- Go back to 'Select Action', enter an 'M', make the necessary change, and press enter.
- A message will display 'Modify Successful'.
- When modifying EGAD Detail at the bottom of the screen, enter an 'M' under 'Action', make the necessary change, and press enter.
- A message will display 'Modify Successful'.

1.9.1.3 Deleting a Row

- For 'Select Action', enter an 'F' to 'FIND a row'.
- Type in the PC Field Name. Press enter and the information for that field will appear.
- Go back to 'Select Action' and enter a 'D' to 'Delete row'. Press enter.
- A message will appear asking for verification to delete. Press enter.
- A message will display 'Delete Successful'.

1.9.1.4 Adding a Row

- For 'Select Action', enter an 'A' to 'ADD row'.
- Type in the information, referencing the above information. Press enter.
- A message will display 'Add Successful'.
- When entering EGAD Detail at the bottom of the screen, enter an 'A' under 'Action' and enter the information for that row. Press enter.
- A message will display "Add Successful".

1.10 Exit Criteria

After additions/changes/deletions are made to the EGAD Table, the person making the changes must mark the task as complete in the IR Log. The person initiating the addition/change/deletion must test it and document the results in the IR.

1.11 Forms and Instructions

An IR must be created by the person initiating the addition/change/deletion to EGAD. The IR is then routed through Change Control for approval.

1.12 Subject Examples

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1.13 Reference Material

The Data Management Guide

1.14 Policy History

Established/Revision Date	Established/Revised By	Change Description
5/8/00	Tina Poyner	Policy/Process Established
3/8/01	Carrie Swanson	Removed references to the 'Pink Sheet' which is no longer used.

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1 Map Maintenance

1.1 Overview

Maps are used in the Claims, Eligibility, Provider, Capitation, Drug, and MCPF Convert Programs to map one value to another or to check for valid values. Maps are also used to convert a Medi-Cal value to a MEDSTAT value. Maps are maintained on the LAN for convenience and print quality. A Map Directory can be found in Appendix 1.15.1. A list of fields that affect maps can be found in Appendix 1.15.2. An example of a map can be found in Appendix 1.15.3. An IR Impact Checklist can be found in Appendix 1.15.4.

Occasionally new values are added, old values deleted, or a value should be mapped differently. Normally, a map change is initiated by an OIL from the State. When MEDSTAT receives an OIL, the table owner opens an Investigative Request (IR), with a task for the Map Manager to make the necessary map changes. When the map changes are made, the new version is uploaded to the mainframe. The developer runs a compare report for the Map Manager to review and confirm the correct changes were made.

1.2 Purpose

The purpose of this document is to create a documentation standard for the process of adding, changing, or deleting items from maps.

1.3 Scope

This document applies to the addition, modification, or deletion of items from maps by a Data Manager.

1.4 Responsibility and Enforcement

The Data Management team is responsible for adding, changing, or deleting items from maps.

1.5 Policy Statement

The objective of this procedure is to ensure all map changes are correctly implemented.

1.6 Special Considerations

The SVCCPT map assigns a MEDSTAT Service Type (SVCTYP) from CPT, HCPCS, and Local Procedure Codes. MEDSTAT updates the CPT and HCPCS codes annually, but this map must be manually updated for Medi-Cal because of the Local Codes on the map and because Medi-Cal uses more specific Service Types than MEDSTAT assigns. Specifically, when MEDSTAT assigns Service Type values 80 through 83, Medi-Cal reassigns these to Service Types 170 to 176. When MEDSTAT updates these codes annually, a copy should be given to the State for review. The State will indicate which codes should have a more specific Service Type assigned and return to MEDSTAT. MEDSTAT will then update the SVCCPT map.

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1.7 Skill Requirements

The skills required to perform the Map Maintenance Process are:

- Basic knowledge of Windows File Management techniques
- Basic knowledge of Excel spreadsheets
- Familiar with the IR Log

1.8 Entry Criteria

When a map change is needed, the Data Manager initiating the change must enter a task in an IR and assign a task to the Map Manager to implement the change. The task should include the map to be changed and the exact change requested. The IR will indicate build or update which should include the map change. The Data Manager must also indicate the map(s) to be changed in the Configuration Management part of the IR.

1.9 Procedure Steps

The major activities of the process are described in detail.

1.9.1 Map Change is Initiated

Normally, an OIL is received from the State which initiates a map change, although that is not always the case. Some changes are initiated by MEDSTAT and approved by the State. The Data Manager responsible for the table which uses the map opens an IR stating the specific change and assigns a task to the Map Manager to implement the change. The Data Manager also indicates the map(s) to be changed in the Configuration Management part of the IR.

1.9.2 Map Manager Makes the Change

The Map Manager creates a folder on the LAN for each build or update in order to maintain the applicable versions of the maps for each build or update. The Map Manager must change the most recent version of the map. The maps are maintained on the LAN under a folder named 'Specifications' for the current Phase. For example, Phase 5 maps can be found in the folder:

W:\Ca_med\Datamgmt\Phase 5\Specifications\Maps\

There is a folder under 'Maps' for each build or update, which contains any maps changed for that build or update. The versions of any maps that did not change remain in the last build or update folder where they were changed. For example, for Phase 5 there will be a folder for each build or update, such as:

W:\Ca-med\Datamgmt\Phase 5\Specifications\Maps\P5.1 Changes

W:\Ca-med\Datamgmt\Phase 5\Specifications\Maps\P5.2 Changes

W:\Ca-med\Datamgmt\Phase 5\Specifications\Maps\P5.3 Changes

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W:\Ca-med\Datamgmt\Phase 5\Specifications\Maps\P5.3.1 Changes

W:\Ca-med\Datamgmt\Phase 5\Specifications\Maps\P5.3.2 Changes

Only maps changed or added for that build or update will be in each folder. When a map change is needed, the Map Manager must locate the most recent version of that map by starting with the most recent build or update folder and going backward. When the most recent version is located, the map should be copied into the new folder and then the changes made to that map. All changes are recorded in the Change Log at the top of each map, which include the IR number, the date, the Phase, the initials of the person making the change, and what the change was. The Map Manager marks the task as complete in the IR and assigns a task to a developer to upload the map to the mainframe.

1.9.3 Uploading the Map to the Mainframe

The developer uploads the map to the mainframe and runs compare reports for the Map Manager to review.

1.9.4 Compare Reports

The developer downloads the compare reports to the LAN, to the folder for that build or update. The compare folders are similar to the map folders. For example, the structure for Phase 5 would be as follows:

W:\Ca_med\Datamgmt\Phase 5\Specifications\Maps\P5.1 Compares

W:\Ca_med\Datamgmt\Phase 5\Specifications\Maps\P5.2 Compares

W:\Ca_med\Datamgmt\Phase 5\Specifications\Maps\P5.3 Compares

W:\Ca_med\Datamgmt\Phase 5\Specifications\Maps\P5.3.1 Compares

The Map Manager reviews the compare reports to ensure the changes (and only the changes) are itemized on the report. The Map Manager should review the Change Log in the map to determine what changes should be on the compare report. When a line on a map is changed, it will print on the compare report as a deletion of the old value and an insertion of the new value. Only changes recorded in the Change Log should be on the compare report. If any additional changes are noted, the Map Manager should consult the table owner or the developer. After the compare reports are reviewed, the Map Manager gives the go-ahead for the developer to promote the map into production.

1.10 Exit Criteria

After the map changes are made, the Map Manager marks the task as complete in the IR Log. The person initiating the addition/change/deletion must test it and document the results in the IR.

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1.11 Forms and Instructions

1.12 Subject Examples

1.13 Reference Material

1.14 Policy History

Established/Revision Date	Established/Revised By	Change Description
5/9/00	Tina Poyner	Process Established
12/14/00	Tina Poyner	Added Appendix for list of fields that affect maps, added Configuration Management part of IR, added Special Considerations, added IR Impact Checklist Appendix.
1/23/01	Carrie Swanson	Updated the attachments to include the PMW specific fields and maps.

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1.15 Appendix

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1.15.1 Map Directory

Map Name	Fields on Map	PV	Convert	Description of Map
ADJCAP	ADJCAP & Description		Capitation	Capitation Adjustment Codes - used to validate the ADJCAP value and to assign the MEDSTAT ADJIND field. Also used to determine whether the MBRMOS and NETPAY fields are positive or negative values. When this map is updated, also update the Capitation Turnaround Report Checklist.
	ADJIND & Description			
ALIENCD	ALIENCD & Description		Eligibility	Alien / Eligibility Code - used to validate the ALIENCD being converted.
ALIENIND	ALIENIND & Description		Eligibility	Refuge / Alien Indicator - used to validate the ALIENIND being converted.
AMBPROC	PROC1		Claims	Ambulatory Procedure Codes - used to assign an ambulatory surgical grouping code based on the PROC1.
	AMPROC & Description	PV		
CDBFOLOC	Maintained on mainframe		Claims	List of FOLOG Numbers to be Reported on the Failed Operations Report for Claims
CDBFOLOD	Maintained on mainframe		Drug	List of FOLOG Numbers to be Reported on the Failed Operations Report for Drug
CDBFOLOE	Maintained on mainframe		Capitation	List of FOLOG Numbers to be Reported on the Failed Operations Report for Capitation
CDBFOLOF	Maintained on mainframe		Eligibility	List of FOLOG Numbers to be Reported on the Failed Operations Report for Eligibility
CDBFOLOM	Maintained on mainframe		MCPF	List of FOLOG Numbers to be Reported on the Failed Operations Report for MCPF Member Months
CDBFOLON	Maintained on mainframe		MCPF	List of FOLOG Numbers to be Reported on the Failed Operations Report for MCPF Financials
CDBFOLOO	Maintained on mainframe		MCPF	List of FOLOG Numbers to be Reported on the Failed Operations Report for MCPF Enrollment
CDBFOLOV	Maintained on mainframe		Provider	List of FOLOG Numbers to be Reported on the Failed Operations Report for Provider
Coverage Type	AIDCODE		PMW Build	Used to map Aid Category Code (AIDCODE) to the applicable PMW Coverage Types (found in the PMW Technical Reference Guide)
	Coverage Type			
DCHGBLNK	Blank Patient Status & Desc		Claims	Discharge Status - used to assign the MEDSTAT Discharge Status value from F35-PATIENT-STATUS
	MEDSTAT DSTATUS & Desc			
DCHGDDS	DDS Discharge Code & Desc		Claims	Discharge Status - used to assign the MEDSTAT Discharge Status value from F35-PATIENT-STATUS

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			DISCHARGE-CODE
	MEDSTAT DSTATUS & Desc		
DCHGDHS	DHS Discharge Code & Desc	Claims	Discharge Status - used to assign the MEDSTAT Discharge Status value from F35-DISCHARGE-CODE
	MEDSTAT DSTATUS & Desc		
DCHGLTC	LTC Patient Status & Desc	Claims	Discharge Status - used to assign the MEDSTAT Discharge Status value from F35-PATIENT-STATUS
	MEDSTAT DSTATUS & Desc		
DCHGU	U Patient Status & Desc	Claims	Discharge Status used to assign the MEDSTAT Discharge Status value from F35-PATIENT-STATUS for Short Doyle and Inpatient Hospital Claims
	MEDSTAT DSTATUS & Desc		
DNTLORIG	HCPCS & Description	Claims	Original 3-Digit Denti-Cal codes converted to HCPCS in the PROC1 field
	Denti-Cal Code		
ELIGCAT	AIDCODE & Description	PV	Capitation
	ELIGCAT & Description	Claims, Drug, Eligibility	Used to obtain the value for ELIGCAT based on AIDCODE. Drop records where CAP-AID-CODE is not on this map.
		Splitter	Used to validate the AIDCODE being converted and to assign the appropriate ELIGCAT value based on the AIDCODE
			Used to validate F35-BID-AID-CODE when the F35-BID-CNTY is to be included for all FFp services.
ELIGCNTY	ELIGCNTY & Description	PV	Capitation
		Eligibility	Drop records where CAP-PHP-COUNTY is not on this map.
		Splitter	Beneficiary County - used to validate the ELIGCNTY being converted.
			Used to validate F35-BID-CNTY.
ETHNIC	ETHNCTY & Description	PV	Eligibility
			Ethnicity codes - used to validate that a defined Ethnic Code is being converted.
FLGAPRCA	OPR#		Capitation
	Invalid Value		List of Approved 'Invalid' Values for Capitation
FLGAPRCL	OPR#		Claims
	Invalid Value		List of Approved 'Invalid' Values for Claims
FLGAPRDR	OPR#		Drug
	Invalid Value		List of Approved 'Invalid' Values for Drug
FLGAPREL	OPR#		Eligibility
	Invalid Value		List of Approved 'Invalid' Values for Eligibility
FLGAPREN	OPR#		MCPF
			List of Approved 'Invalid' Values for MCPF Enrollment

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	Invalid Value			
FLGAPRFI	OPR#		MCPF	List of Approved 'Invalid' Values for MCPF Financials
	Invalid Value			
FLGAPRME	OPR#		MCPF	List of Approved 'Invalid' Values for MCPF Member Months
	Invalid Value			
FLGAPRPR	OPR#		Provider	List of Approved 'Invalid' Values for Provider
	Invalid Value			
FLGKEYCA	OPR#		Capitation	List of FOLOG Numbers to be Reported on the Unexpected Values Report for Capitation
FLGKEYCL	OPR#		Claims	List of FOLOG Numbers to be Reported on the Unexpected Values Report for Claims
FLGKEYDR	OPR#		Drug	List of FOLOG Numbers to be Reported on the Unexpected Values Report for Drug
FLGKEYEL	OPR#		Eligibility	List of FOLOG Numbers to be Reported on the Unexpected Values Report for Eligibility
FLGKEYEN	OPR#		MCPF	List of FOLOG Numbers to be Reported on the Unexpected Values Report for MCPF Enrollment
FLGKEYFI	OPR#		MCPF	List of FOLOG Numbers to be Reported on the Unexpected Values Report for MCPF Financials
FLGKEYME	OPR#		MCPF	List of FOLOG Numbers to be Reported on the Unexpected Values Report for MCPF Member Months
FLGKEYPR	OPR#		Provider	List of FOLOG Numbers to be Reported on the Unexpected Values Report for Provider
HFPA			Claims, Drug, Provider	Health Facility Planning Area [Electronic Copy ONLY] - used to determine the HFPA number from converted PROVZIP.
LANGUAGE	LANGUAGE & Description	PV	Eligibility	Language codes - used to validate that a defined Language Code is being converted.
MCALAGE	Age value	PV	Claims, Drug, Eligibility	Medical Age Groups - used to map the AGE of the eligible to Medi-Cal defined Age Groups.
	Grouping & Description			
NETPROD	From Effective Date		Capitation	Used to validate PHPCODE and assign a NETWORK value from PHPCODE.
	Thru Effective Date		Claims, Drug	Used to validate that a defined PHPCODE is being converted.
	PHPCODE & Description		Eligibility	Used to validate MEDPHP and assign NETWORK, PRODUCT, and DENTAL.
	NETWORK & Description	PV	MCPF	If PLANMCF is alphanumeric, NETPROD is used to validate PLANMCF. If PLANMCF is numeric, NETPROD is used to reassign PLANMCF with its appropriate Corporate Parent Code.
	PRODUCT & Description	PV		

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	DENTAL & Description			
	PLANMCF & Description			
PLACACOM	F35-ACCOM-CODE & Desc		Claims	Used to assign the MEDSTAT Place of Service from F35-MIO-POS and F35-ORIG-POS.
	MEDSTAT PLACE & Desc			
PLACDHS	DHS Code & Description		Claims	Used to assign the MEDSTAT Place of Service from F35-MIO-POS and F35-ORIG-POS.
	MEDSTAT PLACE & Desc			
PLACDRUG	DHS Code & Description		Drug	Used to assign the MEDSTAT Place of Service from DHS Place of Service.
	MEDSTAT PLACE & Desc			
PLACFI	FI-POS Code & Description		Claims	Used to assign the MEDSTAT Place of Service from F35-MIO-POS and F35-ORIG-POS.
	MEDSTAT PLACE & Desc			
PLACHCFA	HCFA Code & Description		Claims	Used to assign the MEDSTAT Place of Service from F35-MIO-POS and F35-ORIG-POS.
	MEDSTAT PLACE & Desc			
PLANTYP	PHPCODE		Eligibility	Used to assign PLANTYP from a valid MEDPHP.
	Plan Type			
	Effective Date			
	Discontinued Date			
PROVCNTY	PROVCNTY & Description	PV	Provider	Used to validate the Provider County code.
PROVSPEC	PROVSPEC & Description	PV	Provider & Claims Convert	Used to validate the Provider Specialty code.
	Provider Source			
PROVST	State Abbreviation & Desc		Provider	Used to validate the Provider State code.
PRTYP	Medi-Cal Vendor Code & Desc		Claims	Assigns a MEDSTAT Provider Type from a Medi-Cal Vendor Code (NOT PROVTPs 22 or 26)
	MEDSTAT PROVTP & Desc			
PRTYP22	Medi-Cal Prov Spec & Desc		Claims	Assigns a MEDSTAT Provider Type from a Medi-Cal Provider Specialty(PROVTYPs 22 & 26)
	MEDSTAT PROVTP & Desc			
RECODE	PROC1 - Orig Code		PMW	PMW Recode Map
	Recode - Standard CPT			
	Description			
RESCNTY	RESCNTY & Description		Eligibility	Used to validate the RESCNTY being converted.
RVUADJ	PROVZIP		Claims	Adjusted RVU Factors [Electronic Copy ONLY]

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	Adjusted Work Factor			This map is searched by the PROVZIP code; and the Adjusted Work Factor (WORKADJ), the Adjusted Practice Expense Factor (PEADJ), and the Adjusted Malpractice Factor are used to calculate the RVCADJ.
	Adj Practice Expense Factor			
	Adjusted Malpractice Factor			
RVUHCFA	PROC1		Claims	HCFA RVU Assignment Table [Electronic Copy ONLY]
	PROCMOD			This map is searched with PROC1/PROCMOD and the Work RVUs and Practice Expense RVUs and Malpractices RVUs from the map are used in the calculation of RVUTOT.
	WORKRVU			
	PERVU - Office			
	PERVU - Facility			
	MPRVU - Malpractice			
RVUMODX	PROCMOD & Description		Claims	Modifiers that identify services to be excluded from the RVU Assignment Logic
RVUPLACE	PLACE & Description		Claims	Facility Place Codes defined by HCFA - used to define facilities so that the HCFA site-of-service definition can be applied during the RVU Assignment process.
RVUSURGX	PROC1 & Description		Claims	CPT Surgical Procedures Codes to be excluded from the RVU Assignment Logic
SVCCPT	PROC1 (5 digit only)		Claims	Used to assign the MEDSTAT Service Type fro CPT/HCPCS/Local codes when PROC1 is 5-bytes.
	MEDSTAT SVCTYP & Desc			
SVCCPT4	PROC1 (4 digit only)		Claims	Used to assign the MEDSTAT Service Type for CPT/HCPCS/Local codes when PROC1 is only 4-bytes.
	MEDSTAT SVCTYP & Desc			
SVCLAWAV	Accommodation Code & Desc		Claims	Used to assign the MEDSTAT Service Type from an LA Waiver Code.
	MEDSTAT SVCTYP & Desc			
SVCLTC	Accommodation Code & Desc		Claims	Used to assign the MEDSTAT Service Type for Long Term Care services.
	MEDSTAT SVCTYP & Desc			
SVCMODE	Accom Code (SDMH) & Desc		Claims	Used to assign the MEDSTAT Service Type for Short-Doyle Inpatient services.
	MEDSTAT SVCTYP & Desc			
SVCST	Accom Code (DDS) & Desc		Claims	Used to assign the MEDSTAT Service Type for DDS services.
	MEDSTAT SVCTYP & Desc			
SVCUB92	Accom Code & Description		Claims	Used to assign the MEDSTAT Service Type using the UB92 field.
	MEDSTAT SVCTYP & Desc			

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VENDORCD	Medi-Cal Provider Type & Desc	PV	Claims	Used to validate that a defined Vendor Code value is being converted.
	Accom Code 1		Provider	Used to convert PROVTYPE into VENDORCD.
	Accom Code 2			
	Medi-Cal Vendor Code & Desc			

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1.15.2 Fields That Affect Maps

PC Field Name	Description	Map to Update	Other Fields on Map	Used in Convert	Affects PV
ADJCAP	Cap Adjustment Indicator	ADJCAP	ADJIND	Capitation	
AGE	Age of Eligible	MCALAGE	MCALAGE	Claims, Drug, Elig	
AIDCODE	Aid Code of Eligible	ELIGCAT	ELIGCAT	Cap, Claims, Drug, Elig, Splitter	
		Coverage Type	Coverage Type (PMW specific)	PMW Build	
ALIENCD	Alien Eligibility Code	ALIENCD		Eligibility	
ALIENIND	Refugee/Alien Indicator	ALIENIND		Eligibility	
AMBPROC	Ambulatory Procedure Group	AMBPROC	PROC1	Claims	Yes
DENTAL	Dental Plan Code	NETPROD	NETWORK, PHPCODE, PLANMCF, PRODUCT	Cap, Claims, Drug, Elig, MCPF	
		PLANTYP	PLANTYP	Eligibility	
DNTLORIG	Original 3-digit Dental Code	DNTLORIG	HCPCS	Claims	
DSTATUS	Discharge Status	DCHGBLNK	F35-PATIENT-STATUS	Claims	
		DCHGDDS	F35-DISCHARGE-CODE	Claims	
		DCHGDHS	F35-DISCHARGE-CODE	Claims	
		DCHGLTC	F35-PATIENT-STATUS	Claims	
		DCHGU	F35-PATIENT-STATUS	Claims	
ELIGCAT	Category of Eligible	ELIGCAT	AIDCODE	Cap, Claims, Drug, Elig, Splitter	Yes
ELIGCNTY	County of Eligible	ELIGCNTY		Cap, Elig, Splitter	Yes
ETHNCTY	Eligible Ethnicity	ETHNIC		Eligibility	Yes
LANGUAGE	Language of Eligible	LANGUAGE		Eligibility	Yes
LTC	Long Term Care Plan	NETPROD	NETWORK, PHPCODE, PLANMCF, PRODUCT	Cap, Claims, Drug, Elig, MCPF	
		PLANTYP	PLANTYP	Eligibility	
MCALAGE	Age Group (MIS)	MCALAGE	AGE	Claims, Drug, Elig	Yes
MEDPHP	Medical Plan Code	NETPROD	NETWORK, PHPCODE, PLANMCF, PRODUCT	Cap, Claims, Drug, Elig, MCPF	
		PLANTYP	PLANTYP	Eligibility	
MHP	Mental Health Plan	NETPROD	NETWORK, PHPCODE, PLANMCF, PRODUCT	Cap, Claims, Drug, Elig, MCPF	
		PLANTYP	PLANTYP	Eligibility	

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PC Field Name	Description	Map to Update	Other Fields on Map	Used in Convert	Affects PV
NETWORK	Medical Network Plan Code	NETPROD	PHPCODE, PLANMCF, PRODUCT	Cap, Claims, Drug, Elig, MCPF	Yes
PHPCODE	Prepaid Health Plan Code	NETPROD	NETWORK, PLANMCF, PRODUCT	Cap, Claims, Drug, Elig, MCPF	
		PLANTYP		Eligibility	
PLACE	Place of Service Code	PLACACOM		Claims	
		PLACDHS		Claims	
		PLACDRUG		Claims	
		PLACFI		Claims	
		PLACHCFA		Claims	
PLANMCF	PHP Corporate Parent Code	NETPROD	NETWORK, PHPCODE, PRODUCT	Cap, Claims, Drug, Elig, MCPF	
PROC1	Procedure Code	AMBPROC	AMBPROC	Claims	
		DNTLORIG	DNTLORIG	Claims	
		RECODE	<i>Mapped to standard CPT</i>	PMW Build	
		SVCCPT	SVCTYP	Claims	
		SVCCPT4	SVCTYP	Claims	
PRODUCT	Plan Model Type	NETPROD	NETWORK, PHPCODE, PLANMCF	Cap, Claims, Drug, Elig, MCPF	Yes
PROVCNTY	County of Billing Provider	PROVCNTY		Provider	Yes
PROVSPEC	Specialty of Provider	PROVSPEC		Claims, Provider	Yes
PROVST	State of Provider	PROVST		Provider	
PROVTYP	Type of Provider	PRTYP	Medi-Cal Vendor Code	Claims	
		PRTYP22	Medi-Cal Provider Specialty	Claims	
RESCNTY	County of Residence	RESCNTY		Eligibility	
SVCTYP	Service Type	SVCCPT	PROC1	Claims	
		SVCCPT4	PROC1	Claims	
		SVCLASWAV		Claims	
		SVCLTC		Claims	
		SVCMODE		Claims	
		SVCST		Claims	
		SVCUB92		Claims	
VENDORCD (Medi-Cal)	Vendor Code	PRTYP	PROVTYP	Claims	Yes

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PC Field Name	Description	Map to Update	Other Fields on Map	Used in Convert	Affects PV
		VENDORCD	Medi-Cal Provider Type	Claims, Provider	

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1.15.3 Map Example – VENDORCD

Medi-Cal Prov Typ Code	Provider Type Description (RF-35-File)	Accom Code 1	Accom Code 2	Medi-Cal Vendor Code	Vendor Code Description (RF-35-File)
001	Adult Day Hlth Care Cntrs	0000	9999	01	Adult Day Hlth Care Cntrs
002	Assist Device and Sick Rm Supp	0000	9999	40	Othr Providers (non-prof)
003	Audiologists	0000	9999	37	Audiologists
004	Blood Banks	0000	9999	41	Blood Banks
005	Certified Nurse Midwife	0000	9999	05	Certified Nurse Midwife
006	Chiropractors	0000	9999	30	Chiropractors
007	Certified Pediatric/Family NP	0000	9999	08	Certified Family NP
008	Christian Science Practitioners	0000	9999	40	Othr Providers (non-prof)
009	Clinical Laboratories	0000	9999	24	Physician Part Lab Srvc
010	Group Cert. Pediatric/Family NP	0000	9999	08	Certified Family NP
011	Fabricating Optical Laboratory	0000	9999	11	Fabricating Optical Labs
012	Dispensing Opticians	0000	9999	29	Dispensing Opticians
013	Hearing Aid Dispensers	0000	9999	45	Hearing Aid Dispenser
014	Home Health Agencies	0000	9999	44	Home Health Agencies
015	Community Hosp Outpatient	0000	9999	62	Hosp: Comm Outpatient
016	Community Hosp Inpatient	0000	9999	60	Hosp: Comm Acute I/P
017	Long Term Care	0000	0040	80	Nursing Facility (SNF)
017	Long Term Care	0041	0069	47	Intermediate Care Fac
017	Long Term Care	0070	9999	80	Nursing Facility (SNF)
018	Nurse Anesthetists	0000	9999	13	Nurse Anesthetists
019	Occupational Therapists	0000	9999	35	Occupational Therapists
020	Optometrists	0000	9999	28	Optometrists
021	Orthotists	0000	9999	39	Orthotists
022	Physicians Group	0000	9999	22	Physicians Group
023	Optometric Group	0000	9999	12	Optometric Group Practice
024	Pharmacies	0000	9999	26	Pharmacies
025	Physical Therapists	0000	9999	34	Physical Therapists
026	Physicians	0000	9999	20	Physicians (MD or DO)
027	Podiatrists	0000	9999	32	Podiatrists

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Medi-Cal Prov Typ Code	Provider Type Description (RF-35-File)	Accom Code 1	Accom Code 2	Medi-Cal Vendor Code	Vendor Code Description (RF-35-File)
028	Portable X-ray Laboratory	0000	9999	19	Portable X-ray Laboratory
029	Prosthetists	0000	9999	38	Prosthetists
030	Ground Medical Transportation	0000	9999	42	Medically Required Trans
031	Psychologists	0000	9999	31	Psychologists
032	Certified Acupuncturists	0000	9999	33	Certified Acupuncturists
033	Genetic Disease Testing	0000	9999	04	Genetic Disease Testing
034	Medicare Crossover LCSW Provider Only	0000	9999	02	Medicare Crossover LCSW Provider Only
035	RHC / FQHC	0000	9999	77	Rural Health Clinics/FQHCs
036	HCB - Cert Home Health Agency	0000	9999	71	Home/Comm Based Service Waivers
037	Speech Therapists	0000	9999	36	Speech Therapists
038	Air Ambulance Transportation Svcs	0000	9999	42	Medically Required Trans
039	Certified Hospice Service	0000	9999	06	Certified Hospice Service
040	Free Clinics	0000	9999	75	Organized Outpat Clinics
041	Community Clinics	0000	9999	75	Organized Outpat Clinics
042	Chronic Dialysis Clinics	0000	9999	78	Comm Hemodialysis Center
043	Multispecialty Clinics	0000	9999	75	Organized Outpat Clinics
044	Surgical Clinics	0000	9999	72	Surgicenter
045	Exempt from Licensure Clinics	0000	9999	75	Organized Outpat Clinics
046	Rehabilitation Clinics	0000	9999	79	Independent Rehab
047	Employer / Employee Clinics	0000	9999	75	Organized Outpat Clinics
048	County Clinics not assoc w/hosp	0000	9999	75	Organized Outpat Clinics
049	Birthing Centers - Prim Care Clinic	0000	9999	49	Birthing Center
050	Clinic - otherwise undesignated	0000	9999	75	Organized Outpat Clinics
051	Outpatient Heroin Detox	0000	9999	91	Outpat Heroin Detox
052	Alternative Birth Centers	0000	9999	49	Birthing Center
053	Breast Cancer Early Det Pgm	0000	9999	53	Breast Cancer Early Detection Program
054	Expanded Access to Prim Care	0000	9999	14	Expanded Access to Primary Care
055	Local Education Agency	0000	9999	55	Local Education Agency
056	Respiratory Care Practitioner	0000	9999	09	Respiratory Care Practitioner
057	EPSDT Suppl Services Provider	0000	9999	82	EPSDT Suppl Services
058	Health Access Program	0000	9999	75	Organized Outpat Clinics

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Medi-Cal Prov Typ Code	Provider Type Description (RF-35-File)	Accom Code 1	Accom Code 2	Medi-Cal Vendor Code	Vendor Code Description (RF-35-File)
060	County Hospital Inpatient	0000	9999	50	Hosp: County Acute I/P
061	County Hospital Outpatient	0000	9999	52	Hosp: County Outpatient
062	Group Respiratory Care Practitioner	0000	9999	09	Respiratory Care Practitioner
063	County Hospital LTC	0000	9999	80	Nursing Facility (SNF)
065	Pediatric Subacute Care - LTC	0000	0082	80	Nursing Facility (SNF)
065	Pediatric Subacute Care - LTC	0083	0084	83	Pediatric Subacute Rehab/Weaning
065	Pediatric Subacute Care - LTC	0085	0096	80	Nursing Facility (SNF)
065	Pediatric Subacute Care - LTC	0097	0098	83	Pediatric Subacute Rehab/Weaning
065	Pediatric Subacute Care - LTC	0099	9999	80	Nursing Facility (SNF)
070	Acute Psych Hosp	0000	9999	70	Acute Psych Hosp
072	Mental Health Inpatient	0000	9999	63	Mental Health Inpatient
073	AIDS Waiver Provider	0000	9999	73	AIDS Waiver Services
074	Multi-Purpose Senior Services Pgm	0000	9999	81	Multipurpose Senior Svc Pgm (MPSSP) Waiver
075	Tribal Health Plan	0000	9999	77	Rural Health Clinics/FQHCs
080	CCS / GHPP	0000	9999	03	CCS / GHPP
081	CCS / GHPP	0000	9999	03	CCS / GHPP
090	Out-of-State	0000	9999	90	Others and Out-of-State
098	Miscellaneous	0000	9999	40	Othr Providers (non-prof)
099	Dentists	0000	9999	27	Dentists
XXX	N/A	0000	9999	07	Certified Pediatric NP
XXX	N/A	0000	9999	21	Ophthalmologist
XXX	N/A	0000	9999	23	Lay Owned Lab Services(RHF)
XXX	N/A	0000	9999	51	Hosp: County Extend Care
XXX	N/A	0000	9999	56	Hosp: State Dev Disabled
XXX	N/A	0000	9999	57	Hosp: State Mentally Dis
XXX	N/A	0000	9999	58	Hosp: County Hemodialysis
XXX	N/A	0000	9999	59	Hosp: County Rehab
XXX	N/A	0000	9999	61	Hosp: Comm Extend Care
XXX	N/A	0000	9999	64	Hosp: Comm SDMH
XXX	N/A	0000	9999	68	Hosp: Comm Renal Dialysis
XXX	N/A	0000	9999	69	Hosp: Comm Rehab

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Medi-Cal Prov Typ Code	Provider Type Description (RF-35-File)	Accom Code 1	Accom Code 2	Medi-Cal Vendor Code	Vendor Code Description (RF-35-File)
XXX	N/A	0000	9999	74	Short Doyle Comm MH
XXX	N/A	0000	9999	76	DDS Waiver Services
XXX	N/A	0000	9999	89	Personal Care Services, DDS
XXX	N/A	0000	9999	92	Medi-Cal Targeted Case Mgmt
XXX	N/A	0000	9999	93	DDS Targeted Case Mgmt
XXX	N/A	0000	9999	94	CHDP Provider
XXX	N/A	0000	9999	95	SD Comm MH Rehab

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1.15.4 IR Impact Checklist

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LEGEND: **DM** – Data Manager **DMA** – Data Manager Assistant **Dev** – Developer **DBA** – Data Base Administrator **PV DM** -
Panorama DM
Y – Change needed **N** – No changes needed **?** – Changes may be needed depending on specific update

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1. Map Upload

1.1 Overview

The MIS/DSS customized conversion process utilizes many tables to validate the value or domain of input fields. These tables are maintained by the MEDSTAT data management team in Excel spreadsheets. These spreadsheets ultimately must be transferred to the mainframe environment in order to actually be used during the conversion process.

1.2 Purpose

This process describes the process required to transfer copies of the PC maps (tables) to the mainframe environment.

1.3 Scope

This process relates specifically to the set of maps that are maintained at Medi-Cal and used in the convert process; it does not cover the replacement of external reference tables (e.g., Redbook, CPT master, etc.).

1.4 Responsibility and Enforcement

The Data Management Team Lead is responsible for the content of the individual maps, the Development Team Lead is responsible for ensuring the timely and accurate upload of the PC maps using this process.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

An employee utilizing this process must be an experienced development staff member. This developer should be familiar with data transfer methods, comparison utilities, and the storage methods used for the DataScan maps on the project.

1.7 Entry Criteria

This process is entered any time a map must be uploaded from the PC to the mainframe due to additions/modifications.

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1.8 Procedure Steps

In general, the spreadsheets ("maps") stored in Excel contain extra fields that are not uploaded to the mainframe. Prior to uploading, these columns of data must be deleted. If unfamiliar with the map, obtain a copy of the copybook member, stored on the mainframe in the copy library. The map name in Excel is equal to the copybook member name with an "M" appended to the front to indicate a map. For example, if the map in Excel is named "NETPROD", then the copybook name in TSO will be MNETPROD. Once the copybook is viewed, it's clear which columns of data must be deleted before the map is uploaded.

For the Medi-Cal project, spreadsheets are stored on the w-drive:

- w:/Ca-Med/datamanagement/phase x/specifications/maps
where 'x' of 'phase x' = represents the database – there are folders for each phase. For example, the p5.1 changes subdirectory contains the maps used for the test database 5.1.
Note: Changed maps are replaced in their entirety by the version uploaded from the LAN rather than simply being modified or appended to the previous version.

1.8.1 Uploading Maps

1. On the LAN, copy the spreadsheet to a new location other than the stored DM version.
2. Edit your copy of the spreadsheet:
 - Keep only the columns of data that will be uploaded
 - Delete headers, etc, so that only raw data remains.
3. Change FONT to COURIER for all fields.
4. Auto-fit rows (FORMAT; ROW; AUTOFIT)
5. Auto-fit columns (FORMAT; COLUMN; AUTOFIT)
6. Save as TYPE "PRN" instead of "XLS" (ignore error msg about multiple sheets – only single sheets are used).
7. In TSO, option 6, select File Send.
 - Environment = TSO
 - Scheme = Text Default
8. After file has been uploaded, go into TSO's File-Aid browse.
9. Bring up the file; be sure that you're using the correct copybook name AND PHASE / DATABASE VERSION for that copybook.
10. Check to see that data is falling into the correct columns and fields. If there's a problem, then manually edit the file to correct the problem. This process involves a comparison, on screen, between the uploaded version of the map and the stored version on the LAN. If the upload was unsuccessful, data from one column may be present in another, etc.

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11. When finished, sort the file (sortkey 1,80,BI,A) because it's currently in ASCII order, and needs to be put into BINARY order.
 - ==> *IMPORTANT NOTE: Map "NETPROD" is sorted first by key 1,80, and then by the third column of data (PHP code). If this is not done, then programs will abend.*
12. After sorting the file, copy it to an 80-byte member in the CNVRTMAP production data set (pds), appropriate to the phase you're working with.
13. Copy the file to an 80-byte member in the MIGR pds, appropriate to the phase you're working with (so it can be migrated).
 - * note – ignore the truncation msg you'll get when you do steps 11 and 12 -- all the maps are 80 bytes on the mainframe.
14. Do a SUPERB (comparison utility that identifies differences between two input files) of the new map against the old version of the map (edit column of SUPERB to be sure you do cols 1-80).
 - * note -- Any items marked with I or D ("insert" or "delete") need to be examined. As of this writing (4/10/00), the Validation Data Manager examines the SUPERB and gives the final "go/nogo" as to the accuracy of the map.
15. Download each SUPERB to the "compare" folder on the LAN:
 - w:/Ca-Med/datamanagement/phase x/specifications/maps/Px Compares
 - where 'x' of 'phase x' = phase you're working on
16. There should be one member for each map uploaded.
17. Send a note to the validation DM indicating that the compares are on the LAN.
18. The validation DM will inspect them, and if everything is ok, will give the go-ahead to migrate the maps to production.

1.9 Exit Criteria

This process is exited once approval of an uploaded map is provided and the map is promoted to the production processing library.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A.

1.10 Forms and Subject Examples

N/A

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1.11 Reference Material

N/A.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/10/00	John Mulcahy	Policy/Process Established

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1. Updating Functional Specifications

1.1 Overview

This document describes the process used to write functional specifications for the MEDSTAT Medi-Cal MIS/DSS project. This document details the standard formats used for all functional specifications at both the program level and field level. Using this document, a high degree of standardization and clarity will be achieved for all functional specifications.

The goal when writing functional specifications is to create a readable and understandable description of the specification. The primary audience is the Project Team end users, but the specifications must provide the programmers with all the necessary information to ensure all logic conditions are documented.

1.2 Purpose

The purpose of this document is to make the process of writing a functional specification clear and consistent. It is essential for the specifications to be clear, so that the transformation logic will be implemented correctly and consistently.

This benefits both the programmer responsible for coding the logic, and the reader who is looking for specific content. If the reader knows the expected format of a functional specification, it will greatly reduce document navigation time.

1.3 Scope

This document will be used by any project team member responsible for writing functional specifications. This document will guide the author through the completion of the specification.

1.4 Responsibility and Enforcement

The Change Control Committee is responsible for approving any changes or additions to the functional specification logic. The author of the functional specification is responsible for the initial creation of the specification, communicating this to the appropriate developer, and for testing the implementation of the specification.

1.5 General Considerations

A functional specification answers three principle questions:

- What are we doing to the data?

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- Why are we using transformation logic?
- What is the impact of doing it that way (the therefore)?

To answer the first question, (what?) a functional specification clearly explains by various means (English narrative, rules, tables, charts, etc.) the enhancements made to the data.

Answering the second question (why?) is key to understanding the enhancement logic, more important even than what the logic does.

Answering the third question (therefore?) explains the effects of this logic "downstream," on subsequent data enhancements (e.g., Case build, Episode build, Panorama View extract), application functionality, standard reports and user queries.

The DM Guide is very useful as a reference for answering these questions. It contains information for the MEDSTAT standard and custom fields.

1.6 Skill Requirements

The skills required to write a functional specification include:

- Knowledge of Windows File Management techniques
- Basic knowledge of Excel spreadsheets
- Basic knowledge of DataScan
- Familiarity with the IR Tool
- Familiarity with the DM Workbook
- Ability to use MS Access Forms
- Basic understanding of the rules of logic

1.7 Entry Criteria

This process is entered whenever a functional specification is created or modified. Prior to working on the specification an IR needs to be opened in the IR Tool (MS Access database) and the Change Control Committee must approve of the changes being made.

1.8 Procedure Steps

1.8.1 Program Level specifications (Background Documents)

The program level specifications will use the following outline (an example of a program level functional specification is attached as appendix):

- Overview

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This section gives a high level overview of the program. This includes but is not limited to explaining what input data is processed by this program, and where this program fits into the overall DataScan DSS processing flow.

- **Prerequisites / Pre-conversion**
This section describes any pre-requisites or pre-conversion processing required prior to running this program. This could include other conversion programs that must be run earlier in the processing flow.
- **Indices**
The section should include a list of all primary and secondary indices.
- **Input Data**
This section describes the input data. This should include general formatting issues. For example, "All values on the input file will be positive." It should also describe what each field on the input file represents.
- **Output Data**
This is a broad description of the output data. This might include listing any fields that are hidden in DataScan, or mentioning that certain financial fields do not carry pennies. Specific, field by field information is not maintained here, however. This information is in the field level specifications.
- **Reports**
This section will describe all of the reports that are produced by this program. This can include, but is not limited to, the Aggregate Statistics Report, the Failed Operations Log (FOLOG) Report, and the Unexpected Values Report.
- **Selection / Drop Criteria**
This section describes the logic used to either select or drop records to be processed. This should be defined in such a way that any given record is clearly either included or excluded from processing.
- **Processing Flow / Data Enhancements**
This section describes any enhancements used in processing the data. For example it might explain rounding used on financial fields, or whether an indicator field is used to set another field to a negative value.
- **New Installation Considerations**
This section describes any special considerations that would only apply during a database build, but not during an update.
- **Update Processing Considerations**

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This section describes any special considerations that would only apply during a database update, but not during a build.

- **Maps and Validation Tables**
This section will describe any maps or validation tables used by this program during processing. This should include where this map or table is used. For example, it should state that a map is used by the drop logic, or that it is used to set a particular field.
- **Tagging**
This section will detail any fields that have values tagged from other tables. It will also explain at a high level how that information is tagged to this program.
- **Summary of Document Changes**
This section will provide a change log to track any updates or corrections to the program level specifications. Any time a change is made it will be logged in the change log. An entry in the change log will have the following information regarding the change: date, author, phase, IR tracking number, and a brief description of what was changed.
- **Attachments**
The attachments should include sample pages from every report produced by this program, the COBOL input and output file layouts, and the Field Level Functional specifications, which will be described below. The attachments could also include any other documentation that will support or clarify the program level specification.

1.8.2 Field Level Specifications

The field level specifications are maintained in the DM Workbook (MS Access database). A functional specification should be clear and thorough. Every possible combination of input values should produce exactly one value for each output field. An example of a field level functional specification is attached as Appendix B.

Following is a brief description of the subsections in the DM Workbook that define the functional specification.

Output fields

- **Output field:** the PC name of the output field.
- **Definition:** the English description of what this field represents.
- **DB2 Name:** The name of the field on the DB2 tables.
- **DataScan:** this defines whether this field is a DataScan core field, a DataScan custom field, or a Medi-Cal custom field.
- **Missing value:** this indicates how the EGAD Missing field should be defined.
- **Data type:** this defines whether the output field is decimal or character.
- **Display length:** this defines how many digits there are in the display of the output field.

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- Storage length: this defines how many bytes are used to store this field.

Input fields

- Field name: the name of the input field from the COBOL record layout.
- Data type: this defines whether the input field is decimal or character.
- Length: this is the length of the input field in bytes.

Transformation

- Logic: a clear explanation, with tables, charts, etc. as required, of the transformation of the input value(s) to the output value(s). If tables, charts, or other documents that do not fit into this field are required, the location of these files on the LAN should be listed here.
- FOLOG calls: this should clearly define any combination of input values that would result in a FOLOG call. It should also define what the FOLOG Operator number for that call is, and what information is sent to the FOLOG report.
- Default: this indicates what value this field will be if no other logic prevails. This may be the missing value, but not necessarily.
- Precedents: This lists any fields that must be converted prior to converting this field.
- Impact: this is the downstream consequences of using this logic.
- Tech. Notes: this section would include any technical implementation issues that must be specifically addressed to set this field. Any pseudo-code to describe the transformation logic would be here.

Revisions

- Date: the date any change was made to the specification.
- Author: the person who made the change.
- Phase: the phase of the Medi-Cal MIS/DSS implementation during which the change was made.
- IR(s): the IR tracking number for the IRs that relate to this change.
- Description: a brief description of what was changed and why it was changed.

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1.9 Exit Criteria

After the functional specification is written it must be implemented by the appropriate developer. This implementation must be tested by the responsible Data Manager.

1.9.1 Exit Exception Criteria

There are no exit exception handling criteria.

1.9.2 Exit Exception Handling

1.10 Forms and Subject Examples

Attached to the end of this document are examples of both Program and Field level functional specifications.

1.11 Reference material

DM Workbook (MS Access)
IR Tool (MS Access)
DM Guide

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
04/28/00	Tyson Wright	Process Established

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Attachment 1. Example Program Level Functional Specification

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***Medi-Cal Management Information
System and Decision Support System (MIS/DSS)***

***Data Enhancement Functional Specifications
for Capitation Payment Table
Phase 5***



September 9, 1999

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2. Overview

Capitation data will be provided to the MEDSTAT Group by the Department of Health Services. The Capitation data includes the invoiced capitation amounts paid to health care plans. Each record represents the amount paid to a plan for a given aid code, month, and number of members (Member Months). The data is then processed and loaded into the Capitation DataScan table, a custom table created for the Medi-Cal MIS/DSS project, and an extract of this file is created and loaded into Panorama View in an aggregate form. Because of the confidentiality of its data, the Capitation DataScan table is *not* available to all users. The list of authorized users will be supplied by the Department of Health Services.

Figure 1 gives a high-level view of the major conversion processes and helps illustrate the relationship between the processes. The shaded box represents the conversion process being discussed in this section.

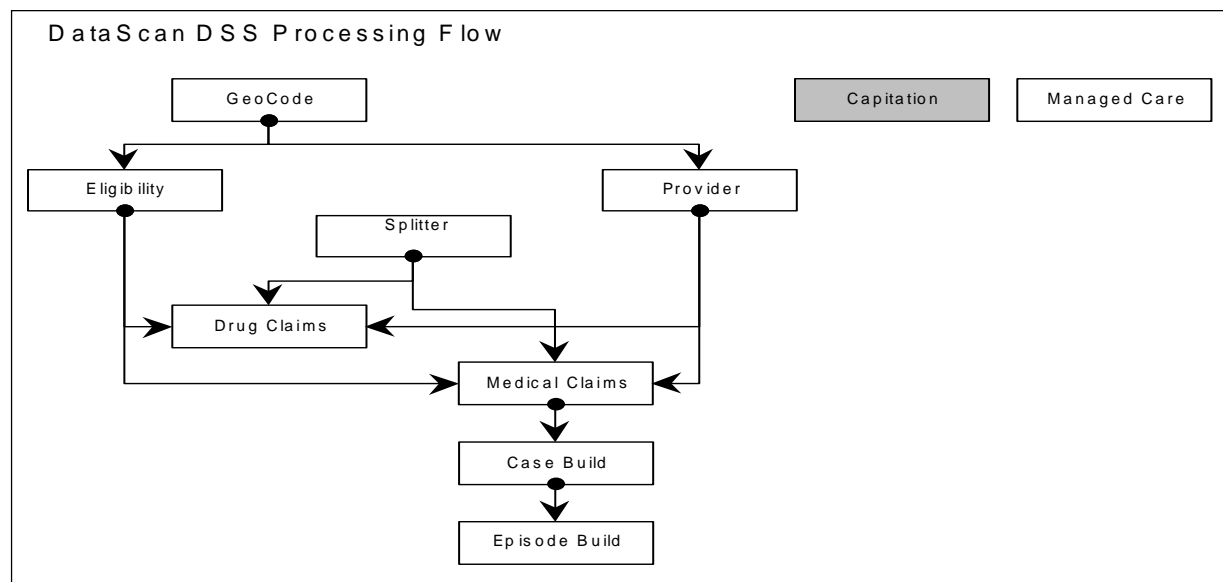


Figure 1. DataScan DSS Processing Flow

3. Prerequisites / Pre-Conversion

This data does not have any prerequisites and does not need to be pre-converted.

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4. Indexes

There are no indices set on the Capitation Table because of its small size. As the table size and utilization increases, indexing will be evaluated and implemented if necessary.

5. Input Data

- All values on the input file will be positive.
- Input file layouts can be found in Attachment 1.
- The following matrix describes notable characteristics of the input data:

Field Name	Description
CAP-PHP-CODE	The 3-digit Prepaid Health Plan Code.
CAP-PAYMENT-DATE	This is not the check date, but the date of the invoice.
CAP-SERVICE-DATE	The month/year of coverage for the initial capitation payment (The initial capitation payment is indicated when the adjustment indicator on the input file is <space>). For adjustments (both positive and negative adjustments), CAP-SERVICE-DATE indicates the month in which the adjustment is applicable to. It is NOT the month/year the adjustment has been made. For example, an adjustment for a May 1997 capitation service month may appear on any record with a later payment date.
CAP-PHP-COUNTY	The 2-digit county code of the Prepaid Health Plan.
CAP-AID-CODE	The aid code covered by this record.
CAP-ADJUSTMENT-INDICATOR	The adjustment indicators that identify initial payments, and negative or positive adjustments. The ADJCAP map identifies all the valid value.
CAP-NBR-MEMBER-MNTHS	For CAP-ADJUSTMENT INDICATOR = <space>, This field would contain the number of eligibles covered by the capitation payment. For CAP-ADJUSTMENT INDICATOR = 1 or 2, This field would contain the number of member months for the adjustment
CAP-NET-PAYMENT	The check amount of the capitation payment for the specified record. This field does carry pennies.

6. Output Data

- The output field NETPAY does *not* carry pennies.
- Negative adjustments will have a negative value in MBRMOS and NETPAY.

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- The following fields are maintained only for Panorama View and will be hidden in DataScan®:
 - ◆ CLMTYPE - Claim Type
 - ◆ PROVSPEC – Provider Specialty
 - ◆ VENDORCD – Vendor Code
 - ◆ SVCCAT – Service Category

7. Reports

The Capitation Convert Program will produce two reports: the Aggregate Statistics Report, and the Failed Operations Log (FOLOG) Report. Samples of these reports are included as attachments.

7.1 Aggregate Statistics Report

The Aggregate Statistics Report will document all records that were dropped because of incomplete information or field values that did not fall within a pre-defined range. The Aggregate Statistics Report will include:

- Total number of records received
- Subtotal of records dropped and the reason they were dropped
(For Capitation, records are subtotaled by NETPAY)
- Total of the records dropped
- Total of the records converted

7.2 Failed Operations Log (FOLOG) Report

The FOLOG Report will document records that have not been dropped but fail while converting raw input data into the format required for DataScan. One or more input fields that were not in the expected format (e.g., invalid data or non-numeric data in a numeric field) may cause the failure. The FOLOG Report will include:

The FOLOG Report will include:

- Field name
- Operation Number
- Description of the operation that failed
- Unmapped/undefined values found for that operation
- Count of the number of records with possible errors for that operation
- Percent of Total Records
- NETPAY amount associated with each failed value
- Percent of total NETPAY associated with each failed value

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The types of problems that the FOLOG report can highlight are:

- Wrong input file was converted.
- Wrong conversion program was run against the input file.
- Input file format changed.
- Unmapped fields or field values were in the input data.
- Incoming input data values were all blanks or zeros.
- Unexpected field values were present in the input data.
- Improper records were dropped.

NOTE: Refer to the Field Level Detail for more specific information on the FOLOG calls individual fields that are reported on the FOLOG Report.

7.3 Unexpected Values Report

The Unexpected Values Report will be very similar to the FOLOG Report with several additions and will:

- Indicate when a failed value has been previously reported to the State and they have indicated that it is in fact a failure
- List the unmapped/undefined values found for each operation by PHPCODE

The fields on the Unexpected Values Report are a subset of the FOLOG Report and are driven by two Excel spreadsheets. The first spreadsheet is a list of FOLOG operation numbers to be included in the report. The second is a list of previously approved values to map to other/invalid for each operation number. The State has the responsibility of determining fields (of those listed in the FOLOG Report) to include in the Unexpected Values Report.

8. Selection / Drop Criteria

Inclusion/exclusion criteria processing occurs at the beginning of the Capitation process, before any of the steps listed in the high-level process flow section.

Each drop condition will be identified separately on the Aggregate Statistics Report or on a separate build report.

8.1 Capitation Payment Date Format Invalid

Drop records if the Capitation Payment Date (CAP-PAYMENT-DATE) is not a valid date.

8.2 Capitation Payment Date Outside the Database Window

The DataScan database stores 30 months of paid data. During each monthly update the window moves up a month, with a new month of paid data being added, and the oldest month rolling off. Drop records where the Capitation Payment Date (CAP-PAYMENT-DATE) is earlier or later than the 30-month database window.

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8.3 Eligible County Invalid

Drop records when the Eligible County (CAP-PHP-COUNTY) is not validated against the ELIGCNTY map, matching on: CAP-PHP-COUNTY = ELIGCNTY Code.

8.4 Aid Code Invalid

Drop records when the Aid Code (CAP-AID-CODE) is not validated against the ELIGCAT map, matching on: CAP-AID-CODE = ELIGCAT Aid Code. The ELIGCAT map contains a list of valid Federally Funded Program (FFP) Aid Codes to be included in the MIS/DSS.

8.5 Member Months Invalid

Drop records if the number of member months (CAP-NBR-MEMBER-MNTHS) is not numeric. Drop records if the number of member months (CAP-NBR-MEMBER-MNTHS) is equal to zero and the adjustment indicator (CAP-ADJUSTMENT-INDICATOR) is a value of space, 1 or 2. Other adjustment indicator values represent withholds and paybacks and may have a member months value equal to zero and will not have an aid code value.

8.6 Capitation Payment Invalid

Drop records if the payment amount (CAP-PAYMENT) is invalid. The payment amount is considered invalid for any of the following conditions:

- Is not numeric
- Is equal to zero
- Is larger than the allowable amount (999,999,999.00)

8.7 Duplicate Records

Check for records that are duplicated. After all the field level conversions have been performed, if the combination of key fields is identical, the duplicated record is dropped. The key fields are:

- PHPCODE, PDDATE, SVCDATE, ELIGCNTY, AIDCODE, ADJCAP, MBRMOS, NETPAY

9. Process Flow / Data Enhancements

- If the converted ADJIND field is a '1' (negative adjustment), the fields MBRMOS (Total Member Months) and NETPAY will be negated.
- The input field CAP-NET-PAYMENT does carry pennies and the output field NETPAY does *not* carry pennies. Therefore, rounding will occur during the data conversion process.

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- The fields CAP-PHP-CODE and CAP-AID-CODE are left justified and blank filled and must be right justified and zero filled before any conversion processing occurs.

10. New Installation Considerations

There are no installation considerations, including special processing to consider.

11. Update Processing Considerations

MEDSTAT receives a monthly update file from the State for Capitation. This file contains the most recent month of processed capitation data and can include numerous values in the PDDATE field. The Capitation Update Process is as follows:

- The monthly update file is processed by the Capitation Convert Program using the RUNDATE parameter that indicates update processing. When the RUNDATE parameter specifies an update, the convert program verifies the PDDATE is within the 30-month window.
- Copy the current production Capitation Table to a worktable.

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- Add the converted data into the worktable.
If a duplicate (based on key fields in Section 7) is found on both the current production table and the converted data, the record from the production table (first received) will be retained and the record from the converted data will be deleted.
This differs from the Managed Care Plan Financials conversion update process, which chooses the record “last received” for retention, because we are checking for duplicates by using all of the primary key identifier fields (PHPCODE, PDDATE, SVCDATE, ELIGCNTY, AIDCODE and ADJCAP) and all of the value fields (MBRMOS and NETPAY). In the Capitation conversion update process, we are trying to prevent duplicate values, whereas in the Managed Care Plan Financials conversion update process we check for duplicates using only the primary key identifier fields and are replacing the value fields with new data.
- Send the converted monthly update file to Panorama View.
- Delete data from the Work Table that is prior to the 30-month database window.
- Verify the worktable and if correct, continue to the next step. Otherwise, research and correct.
- Copy the worktable to the Production Capitation Table. (If possible, this should be concurrent with the “flipping of the switch” to the new database window)
- Verify the new Production Capitation Table and if correct, approve release of table to the user.

12. Maps and Validation Tables

Maps are used to validate source values before moving them as DataScan® output or to look up values for the DataScan® output based on source values. Each map should be sorted by the source values before the conversion program is executed. It is recommended that a map be sorted each time it is updated. Hardcopy and Softcopy (for very large maps) of these maps are provided in the Maps section of the System Design Deliverable. Maps used in Capitation processing include:

Map	Fields	Purpose
ELIGCAT	AIDCODE	Used in Selection/Drop Criteria (See Prior section)
	ELIGCAT	Used to obtain value for ELIGCAT using AIDCODE
ELIGCNTY	ELIGCNTY	Used in Selection/Drop Criteria (See Prior section)
ADJCAP	ADJCAP	Used to validate the ADJCAP value and to assign the MEDSTAT ADJIND field. Also used to determine whether the MBRMOS and NETPAY fields are positive or negative values.
	ADJIND	
CDBFOLOE	N/A	Failed Operations Log (FOLOG) Report – FOLOG operation numbers to be included in the report.

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Map	Fields	Purpose
FLGKEYCA	N/A	Used by the Unexpected Values Report – FOLOG operation numbers to be included in the report
FLGAPRCA	N/A	Used by the Unexpected Values Report – values approved to map to other/invalid
NETPROD	PHPCODE NETWORK	Used to validate PHPCODE Used to obtain value for NETWORK using PHPCODE

13. Tagging

There are no fields that have values tagged from other tables.

14. Summary of Document Changes

<u>Date</u>	<u>Author</u>	<u>Phase</u>	<u>IRs</u>	<u>Description of Changes</u>
8/27/99	K. Key	5	1034	In the Maps and Validation Tables section, removed MBRMOS and NETPAY as fields that use the ADJCAP map.
8/27/99	K. Key	5	1207	In the Update Process Considerations section, added an explanation as to why the retention of records (first vs. last) is different from the Managed Care Plan Financials conversion update process.
8/27/99	K. Key	5	N/A	Clarified the description of Cap-Service-Date, under the Input Data Section, to say that the adjustment is the month it is applicable to, not the month is made.
8/24/99	K. Key	5	1207	Added drop condition for duplicate records. Deleted item under Process Flow about each unique PHPCODE, PDDATE, SVCDATE, ELIGCNTY, and AIDCODE combination being able to have only one adjustment indicator. Modified the item under Process Flow to indicate the MBRMOS and NETPAY will be negated in the converted ADJIND is '1'. Modified Update Processing Considerations section to add duplicate record checking when adding the converted data into the work table.
8/24/99	K. Key	5	1317	Removed the drop condition for dental PHP Codes.
8/23/99	K. Key	5	1368	Added section for new Unexpected Values Report. Added sample report as attachment. Updated Maps and Validation Tables section with CDBFOLOE, FLGKEYCA and FLGAPRCA.
8/23/99	K. Key	5	1034	Modified the drop condition for MBRMOS=0 to only drop when the input ADJIND is blank, 1 or 2. The other ADJIND codes represent withholds and paybacks and may have MBRMOS=0 and not have an aid code.

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<u>Date</u>	<u>Author</u>	<u>Phase</u>	<u>IRs</u>	<u>Description of Changes</u>
8/20/99	K. Key	5	1468	Added CAPCV-AID-CODE to the Capitation Load File Layout (CRCCAPP2). Moved remaining drop conditions (Eligible County Invalid and Aid Code Invalid) from the phase-specific drop logic document to the Capitation background document. Removed county restrictions when validating aid code against the ELIGCAT map. Removed references to AFDCAID map. The use of the AFDCAID map to identify TANF codes ceased beginning with Phase 5, because all aid codes are being accepted for all counties.
4/28/99	K. Key	4	1362	Reordered section 7, Selection/Drop Criteria, to be in the same order that the drops actually occur. Added another drop criteria for Capitation Payment Dates that are not valid dates. Updated attachment of sample Aggregate Statistics Report to reflect the new drop criteria category and the reordering of the counts.
2/4/99	K. Key	4	N/A	Added output file record layout attachment.
2/4/99	K. Key	3	1231	Updated input file record layout attachment.
1/28/99	K. Key	3	1231	Reformatted section 7, Selection/Drop Criteria. Corrected amount of allowable amount on drop condition for payment amount (from 999,999,999.99 to 999,999,999.00). Added new drop condition for Dental PHP Codes (400-408 and 681-684). Updated sample Aggregate Statistics Report to display new drop condition.
1/25/99	K. Key	4	N/A	Added attachments of sample reports.
1/15/99	C. Hubbert	4	N/A	Modification to Section 10 – Update processing considerations because of State Walkthrough.
12/31/98	C. Hubbert	4	739	Reformatted background document into standardized format
11/24/98	C. Hubbert	3	723	Included Section on Monthly Update
11/23/98	C. Hubbert	3	996	Changed NONFFPAIDCODE Map to AFDCAID Map in Mapping Section ; Added Revision Log
6/12/98	C. Hubbert, J. Dittman	3		New Document.

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Attachment 2. Sample Aggregate Statistics Report

CSBSTAT	MEDI-CAL		PAGE : 1
AGGREGATE STATISTICS FOR CAPITATION PAYMENTS FROM 06/01/96 TO 11/30/98			DATE : 03/23/1999
			TIME : 14:43:05
	# OF RECS	PAY-AMT	

# RECS READ	25,330	3,613,713,729.16	

PHPCODE DENTAL INVALID	3,267	57,374,893.00	
PAID DATE FORMAT INVALID			
PAID DATE OUTSIDE RANGE	2,880	397,872,531.86	
COUNTY NOT IN ELIGCTY			
AID CODE NOT IN ELIGCAT	186	874,740.87	
AID CODE NOT IN AFDCALD	6,964	162,024,982.22	
MEMBER MONTHS NOT NUMERI			
MEMBER MONTHS = ZERO			
PAYMENT NOT NUMERIC			
PAYMENT = ZERO	8		
PAYMENT > 999999999.00			

TOTAL RECS DROPPED	13,305	618,147,147.95	
# OF ENR RECS CONVERTED	12,025	2,995,566,581.21	

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Attachment 3. Sample Failed Operations Log (FOLOG) Report

MEDFOLO		MEDI-CAL		PAGE : 1	
		EXTERNAL FOLOG REPORT - CAPITATION CONVERT		DATE : 10/22/1998	
INPUT FILE : CAPITATION CONVERT				TIME : 13:09:26	
NUMBER OF RECORDS : 9,544				TOTAL NETPAY : \$ 0.00	
FIELD	OPR OPERATION	FIELD			
NAME	NO. DESCRIPTION	VALUE	COUNT	%OF TOT RECORDS	NETPAY AMOUNT %OF TOT NETPAY

TOTAL NUMBER OF FAILURES	:	0			
TOTAL NUMBER OF OPERATIONS	:	6			
AVERAGE FAILURES/OPERATION	:				
AVERAGE FAILURES/RECORD	:				

XREF LIC/CLIA	10 PMF PROVLC/CLIANUM	MISSING	64,529	13.8646	0.00 0.0000
TOTALS FOR THE OPR-NO 10 :			64,529	13.8646	0.00 0.0000

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Attachment 4. Sample Unexpected Values Report

MDU120		MEDI-CAL UNEXPECTED VALUES REPORT - CAPITATION CONVERT				PAGE : 1	
INPUT FILE : CAPITATION CONVERT						DATE : 08/12/1999	
NUMBER OF RECORDS : 19						TIME : 15:42:44	
						TOTAL NETPAY : \$ 0.00	
FIELD NAME	OPR OPERATION NO. DESCRIPTION	NEW FIELD VALUE	PHP CODE	ERROR COUNT	%OF TOT RECORDS	NETPAY AMOUNT	%OF TOT NETPAY
NETWORK-ID	2 MEDICAL PLAN	*		1	5.2632	0.00	0.0000
		300		1	5.2632	0.00	0.0000
		421		1	5.2632	0.00	0.0000
		985		1	5.2632	0.00	0.0000
TOTALS FOR THE OPR-NO 2 :				4	21.0526	0.00	0.0000
SERVICE DATE	3 SERVICE DATE	001997		1	5.2632	0.00	0.0000
TOTALS FOR THE OPR-NO 3 :				1	5.2632	0.00	0.0000

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Attachment 5. CRCCAPP1 – Capitation Payment Input File Layout

```

000010*****
000020* CRCCAPP1*
000030*
000040* THIS IS THE CAPITATION PAYMENT RECORD FOR THE CONVERT*
000050* REPLACE THIS WITH THE RAW DATA RECORD LAYOUT FROM THE*
000060* DATA MANAGER - 56 CHAR. LONG*
000070*****
      05 :PFX:-PHP-CODE PIC X(03).
      88 :PFX:-DROP-PHP-CODE-TRUE VALUE '681' THRU '684'
                                '400' THRU '408'.
IR1231*PATCH TO DROP DENTAL RECORDS FROM CONSIDERATION.
      05 :PFX:-PAYMENT-DATE.
          15 :PFX:-PAYMENT-YEAR PIC X(04).
          15 :PFX:-PAYMENT-MONTH PIC X(02).
          15 :PFX:-PAYMENT-DAY PIC X(02).
      05 :PFX:-SERVICE-DATE.
          15 :PFX:-SERVICE-MONTH PIC X(02).
          15 :PFX:-SERVICE-YEAR PIC X(04).
      05 :PFX:-PHP-COUNTY PIC 9(02).
      05 :PFX:-AID-CODE PIC X(02).
      05 :PFX:-ADJUSTMENT-INDICATOR PIC X(01).
      05 :PFX:-NBR-MEMBER-MNTHS PIC 9(07).
      05 :PFX:-PAYMENT PIC 9(10)V99.
      05 FILLER PIC X(15).

```

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Attachment 6. CRCCAPP2 – Capitation Load File Layout

```

000100*****
000200*   CRCCAPP2                                     *
000300*                                             *
000400*   THIS IS THE OUTPUT RECORD FOR THE CAPITATION PAYMENT CONVERT *
000400*   IT IS USED TO LOAD THE DATASCAN TABLE                               *
000500*****
      01  CAPP-CONVERT-RECORD.
IR1034*NEW FIELD.
      05  CAPCV-ADJ-CAP                                PIC X(01).
      05  CAPCV-ADJ-IND                                PIC S9(01)V COMP-3.
      05  CAPCV-AID-CODE                               PIC X(02).
      05  CAPCV-CLAIM-TYPE                             PIC X(01).
      05  CAPCV-COUNTY-CD                             PIC S9(02)V COMP-3.
      05  CAPCV-DENTAL-PLAN-CD                       PIC X(03).
      05  CAPCV-ELIG-CAT                              PIC X(02).
      05  CAPCV-MEMBER-MONTHS                        PIC S9(07)V COMP-3.
      05  CAPCV-NET-PAY-AMT                          PIC S9(09)V COMP-3.
      05  CAPCV-NETWORK-ID                           PIC X(03).
      05  CAPCV-PD-DATE                               PIC X(10).
      05  CAPCV-PHP-CODE                             PIC X(03).
      05  CAPCV-PROV-SPEC                             PIC X(02).
      05  CAPCV-PROVIDER-CNTY                        PIC S9(02)V COMP-3.
      05  CAPCV-SVC-CAT                              PIC S9(04) COMP.
      05  CAPCV-SVC-DT                               PIC X(10).
      05  CAPCV-VENDOR-CD                            PIC X(02).
      05  CAPCV-PV-RUNDATE                            PIC X(10).

```

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Attachment 7. Example Field Level Functional Specification

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Merged PMF/MCP Provider via PLF

Output Field: **BEDCOUNT** Bedcount

Definition: The number of beds in the facility.

DB2 Name: BED_COUNT

DataScan: DataScan custom field **Missing value:** Zero

Data Type: DECIMAL

Display Length: 5, 0

Storage Length: ??

Input Fields:	Field Name	Data Type	Length
	MCP-P-BED-COUNT	9	5
	PMEX-HOSP-NO-BEDS-232	9	5
	PMEX-LTC-NO-BEDS-232	9	5
	PMEX-MAIN-REC-TYPE	X	1

Logic: Move the input field as is (if numeric), except that:

1. On the Merged PMF, there are two bed-count fields, and we must use the one which corresponds to the record type:

PMEX-HOSP-NO-BEDS-232 with PMEX-MAIN-REC-TYPE = 'C' (hospital)
PMEX-LTC-NO-BEDS-232 with PMEX-MAIN-REC-TYPE = 'B' (LTC facility).

(On the MCP Provider file, there is only one bed-count field.)

2. If the input field value > 2200, set BEDCOUNT to 2199.

FOLOG Calls:

1. When PMEX-HOSP-NO-BEDS-232 is not numeric or is missing and PMEX-MAIN-REC-TYP is not equal to 'C' (call FOLOG - invalid bed count ignored)
2. When PMEX-HOSP-NO-BEDS-232 is not numeric or is missing and PMEX-MAIN-REC-TYP is equal to 'C' (call FOLOG - report missing BEDCOUNT).
3. When PMEX-LTC-NO-BEDS-232 is numeric and not missing and PMEX-MAIN-REC-TYP is not equal to 'B' (call FOLOG - invalid bed count ignored)
4. When PMEX-LTC-NO-BEDS-232 is not numeric or missing and PMEX-MAIN-REC-TYP is equal to 'B' (call FOLOG - report missing BEDCOUNT).

Default: Zero (missing value). This is assigned if the input field is non-numeric; or, for the Merged PMF, the main record type is not one of the listed values.

Precedents: None

Impact:

Tech. Notes:

Revisions:	Date	Author(s)	Phase	IR(s)	Description
	11/23/98	C. Hubbert	3	457	Removed references to Panorama View since Provider File is no longer used to obtain bedcounts in Panorama View. DHS Licensing and Certification File is used.
	5/26/98	L. Macklem	3	739	Rewrote as functional spec. Add PMEX-MAIN-REC-TYPE and MCP-P-BED-COUNT input fields.
	1/9/98	C. Hubbert	2	604	Removed logic specific to provider type 80, because those providers are now excluded from the PLF.

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1. Source Code Promotion and Approval

1.1 Overview

The Management Information System and Decision Support System (MIS/DSS) applications interact with the Medi-Cal Department of Health Services (DHS) Health Data Warehouse. In order to support these applications, modifications to components are required to resolve issues or to enhance functionality. Modifications can be made by one of two development teams:

- 1) Locally (Medi-Cal) for customized components
- 2) Remotely (Ann Arbor) for Core Product components

MEDSTAT Medi-Cal met with DHS and the project Audit team (Logicon) and agreed to implement enhanced manual processes to oversee the implementation of new or modified components. This Process addresses three primary areas:

- 1) The documented and centralized check-in/check-out of components for modification and
- 2) The implementation of code review/approval processes during the promotion of components from the development to production environments
- 3) The implementation/maintenance of migrated components into production

The successful implementation of this standard process will be accomplished by the compliance of staff in the completion of documentation and adherence to the process steps outlined below.

1.2 Purpose

This process denotes the necessary steps that development staff conduct to ensure a consistent means of migrating changed components into the working environment.

1.3 Scope

This process covers all components utilized in the Mainframe environment.

1.4 Responsibility and Enforcement

The Development Manager is responsible to ensure that this process is used for all project component changes.

1.5 General Considerations

There are no general considerations for this process.

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1.6 Skill Requirements

A user of this process would be an experienced developer familiar with the project COBOL and JCL Guidelines.

1.7 Entry Criteria

This process is entered any time a component is added or modified for the Mainframe environment.

1.8 Procedure Steps

The process includes procedures to:

1. Check-out project components
2. Review, approve, promote, and check-in new or modified components

1.8.1 Checking-out Project Components

The addition of new components or modifications to existing components will be documented *by the responsible developer* on the affected component list for the respective Investigation Request (IR).

Information that will be entered for each component impacted by the IR includes:

1. Component Type (e.g., Capitation source module)
2. Component Name
3. Owner
4. Completion Status

The *responsible Developer/DBA* will copy their version of all components needed for their respective effort from the current production versions. Under no circumstances will previous test modules be used as initial items for potential change. If multiple changes are required by more than one *responsible Developer/DBA*, there will be a joint responsibility to coordinate the change implementation. It is critical, in a production support environment, that all change occur in harmony with existing functionality and that regression to a lesser state of functionality not occur.

As a rule, MEDSTAT tries to ensure that only a single developer makes changes to a particular component for the duration of time until migration occurs. In the unlikely event that two developers are tasked with changing the same component at the same a check the development manager will be tasked with identifying the situation via a component report in the IR tool and will request that the developers coordinate their respective changes and testing.

1.8.2 Review, approval, promotion, and check-in new or modified components

At the time that a development/dba staff member completes modification efforts required to complete their assigned tasks on an Investigation Request (IR), *they* will generate the following items:

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1. Component Check-In Promotion Request Form (generated by the IR tool – described in section 1.8.1) for all impacted components
2. Copies of comparison differences generated by a compare utility (see section 1.8.2) indicating new, modified, or deleted line between the check-in candidate and the present production version of the component
3. Copies of all affected components will be moved to the appropriate migration library.

The **responsible developer/DBA** will request and conduct a walkthru of the changes indicated by the comparison process with a peer developer, the responsible Data Manager, and their respective managers. The meeting will ensure that the intended design specification was met and that all changes comply with the MEDSTAT Medi-Cal COBOL code and JCL standards. In addition, the reviewers will ensure that only the requested changes required for the enhancement or issue resolution are present and that no unplanned change will occur once the components are migrated. If all items meet the standards and the change is acceptable, the reviewers will denote approval on the migration request form.

Once all approvals are obtained, the **responsible Developer/DBA** will submit his/her promotion request form to the **operations librarian** for promotion of the affected components. The **librarian** will not promote items unless approvals are present on the migration document. If the approvals are present, the **librarian** will promote (move) the requested modules by close of business (sooner if indicated on promotion form as an emergency promotion) on the date indicated and will forward a confirmation (E-mail) of completion back to the requestor. The **librarian** will then compile/recompile source code modules indicated upon the request form. The **librarian** will request assistance from the **responsible Developer/DBA**, in the event that a clean compilation is not obtained. The **librarian** will perform all DB2 binds/rebinds indicated on the promote request. Similarly, if the process is unsuccessful, the librarian will seek resolution assistance from the **responsible Developer/DBA** making the promote request.

Once a promotion has successfully occurred for a production component, the **responsible Developer/DBA** will be tasked with removal of all old versions of components from test libraries. In addition, if the change occurred to a source module or copybook, the **responsible Developer/DBA** will generate a hardcopy listing and file it in the centralized files.

1.8.3 Reconciliation of Product Release Package contents with Promotion Requests

On the day prior to the release package implementation date, the Librarian will print out the “Affected Components Report” for the designated package via the option in the IR tool. This list will be compared to the Component Check-In Migration Request Forms to identify any missing component migrations. This information will be provided to the Operations and Development managers for resolution.

1.9 Exit Criteria

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This process may be exited upon reconciliation of the Product Release Package with the promotion requests.

1.10 Forms and Subject Examples

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Production Promote Request

JR #:		Request #:	
Name	Date Requested	Phase Number	
Special Instructions:			
Library Qualifier (From)		Library Qualifier (To)	
		Production	
Member Name	Library Type	DB2 or Non DB2	
This Section for Production Control Use			
Completed By:		Completion Date:	

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1.11 Reference Material

Operations Library Structure and Management Process

1.12 History

Established/Revision Date	Established/Revised By	Change Description
4/24/00	John Mulcahy	Policy/Process Established
6/20/01	John Mulcahy	Added promotion report to report examples section

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1. Library Structure & Migration

1.1 Overview

This policy organizes the decisions and requirements regarding library structure and application object migration between the development, migration, user acceptance test, and production environments for The MIS/DSS. It contains the definition of the library structure and the process for moving objects between the environments.

The Medi-Cal project presents a few unique challenges in creating appropriate library structures. The requirements for maintaining multiple versions of source code directly impact some decisions made about the migration process. The combination of custom code and DataScan product code further enhance these challenges.

1.2 Purpose

The library structure and migration policy was created to set standards in the way the project team manages environments and application objects. The standards exist to direct the staff and teams efficiently.

1.3 Scope

Any project team member responsible for migrating objects on the IBM mainframe environment will use this document. This is the only platform where application code is being customized for the project. All other platforms are using product code only.

1.4 General Considerations

The Medi-Cal MIS/DSS is being implemented using a phased approach. Each phase, The MEDSTAT Group builds at least two test databases prior to building the 30-month production database version within a phase. This policy has been written to accommodate this phased approach.

1.5 Skill Requirements

Individuals involved in the execution of this process must be knowledgeable in working in a IBM mainframe environment. For example, individuals must be familiar with using the TSO utilities to move objects to different libraries, and possess a working understanding of PDS and library structures.

1.6 Entry Criteria

This process is entered any time an object needs to be stored and migrated.

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1.7 Procedure Steps

The library structure has been developed to segment environments based on the requirements for each category. There are four categories of libraries to support project activities:

- Development – This area is qualified by “TMED” in the second level of the dataset name
- Testing & User Acceptance Testing(UAT) – This area is qualified by “PMED.Pxx.VxRxx” in the second, third, and fourth levels of the dataset name where:
Pxx = Phase and database version number
Vx = Version of DataScan being used in the environmnet
Rxx = Release number of DataScan being used in the environment
- Production – This area is qualified by “PMED” in the second level of the dataset name but does not contain the same qualifiers in the third and fourth position as in the test environments.

The following table defines the dataset inventory and high level qualifier for each environment.

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HLQ	Environment	Phase	DS Version	Library	Description
HM					High level qualifier assigned by HHSDC
	TMED				Development Environment
	MIGR				Migration Environment
	PMED				Production & Pre-Production Environment
		Pxx			Version number of the phase being processed (i.e., P25, P251, P31, P32, etc.) This qualifier is not used in Production (production will be HM.PMED.PROD.library – the phase and DS version are removed).
			VxRxx		Version number of the DataScan release being used (i.e., V3R20, V4R00, V4R01) This qualifier is also not used in Production (see note above for Pxx).
			PROD		Identifies Production libraries
		-----	-----	-----	Development Area -----
				SOURCE	Promoted from Development
				SCRIPTS	Promoted from Development
				COPYLIB	Promoted from Development
				CNVRTMAP	Promoted from Development
				CNVRTTBL	Promoted from Development
		-----	-----	-----	Execution -----
				PRODJCL	Execution JCL (Core and Custom)
				PROCLIB	Execution Procs (Core and Custom)
				CNTL	Execution Control Cards (Core and custom)
		-----	-----	-----	Utility Tools -----
				BINDCTL	Promoted from Development & Altered (members are re-set to point to the appropriate database version).
				COMPJCL	Utility procs for Promotes, Compiles and Library Maintenance
		-----	-----	-----	Created From Compiles -----
				DBRM	Created from Pre-Compile
				LIST	Pre-Compile Listing output
				ZCOB2LST	Compile Listing output
				LINKLIST	Link-Edit Listing output
				LOADLIB	Created from Link
		-----	-----	-----	IBM Area -----
				DCLGEN	Maintained in Pre-Production and Production only (DB2 is the Owner)
				DDL	Maintained in Pre-Production and Production only (DB2 is the Owner)

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The Development Team is responsible for defining and maintaining the Development library structure. The Operations Team will not participate in the administration of the development library structure. Operations will maintain the other (including Production) environment definitions. Following are the security guidelines for each library grouping.

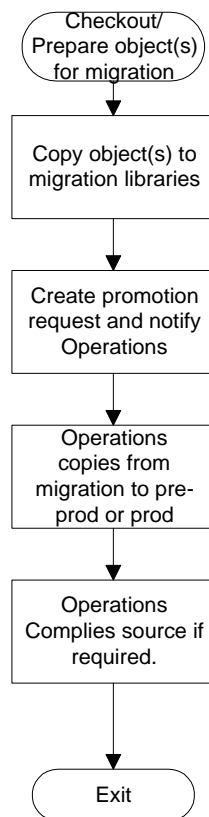
1. Developer's have authority on HM.TMED.* and HM.MIGR.* with Read/Write Access.
2. Operations has authority on HM.* with Read/Write/Delete/Create.

Creation of all library structures with the exception of Development is the Operation Team's responsibility. The pre-production and migration library structures are created at the same time. Usually these environments are created before the first request for a development promotion is received from Development. The creation of libraries is controlled by the CREATE member in the HM.PMED.PROD.COMPJCL dataset. Operations submits this job to initialize all datasets in the library.

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1.7.1 Development Migration Process

Development Migration Process



The development migration process consists of two categories.

1. Version migration – When Development has completed unit testing all modules for a build or update version, they will migrate all source objects into the migration libraries.
2. Fix migration – When Development generates a fix or change for an IR, it will sometimes need to be applied to testing or production libraries. This type of migration is referred to as a fix migration.

Development must prepare a promotion request. This is an itemized list of components that participate in the migration. The promotion request is provided to the Operations Team to notify them that migration should commence on the date specified on the promotion request. The

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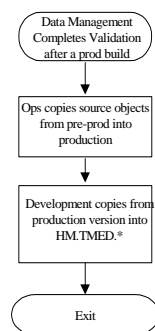
Operations Team will then migrate all components from the HM.MIGR.* into the HM.PMED.* libraries. The Operations Team will only migrate those components that are identified on the promotion request supplied by the requestor. Extraneous objects are left in the migration libraries.

In the case of fix migrations, the Operations Team will follow the same procedure as listed above for a version migration.

1.7.2 Production Migration Process

The production migration process is used by the Operations Team to copy objects from the Pre-Prod libraries into the production libraries. The production system is built out of the Pre-Prod libraries. This occurs because of the nature of the build and update processes. The build and update processes occur over a several day period. The processes are run during business hours while other users are in the DataScan system. Because of this, the production library must remain in tact without changes until the very later stages of the build or update. This is why the

Production Migration Process



build and update process for production is run out of the Pre-Prod environment. Only after the new production system is validated by Data Management does the production migration occur. The production migration process is outlined in the diagram to the left. When Data Management has announced completion of the validation process, the Operations Team will migrate the current environment objects to the new production environment.

1.7.3 Operation's Compilation Tools

The Operation's Compilation Tools are JCL used to simplify the compile process. There are two basic JCL templates used to compile source in the production environment. The JCL is located in the HM.PMED.Pxx.Vxxx.SCRIPTS for pre-production or HM.PMED.PROD.SCRIPTS for production. The above JCL is set up with symbolics that are environment – and phase – specific.

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Listed below are the JCL templates used to compile source in the production environment.

Compiles

There are two types of compiles, DB2 and Non-DB2. A Return Codes of zero is always expected with the exception of the Grant Step. The Grant Step will complete with a Return Code of 4.

JCL Location: HM.PMED.PXX.VXXX.SCRIPTS - for pre-prod version JCL
HM.PMED.PROD.SCRIPTS - for production version JCL

1.8 Exit Criteria

To successfully exit from a development version of fix migration, the promotion and compilation instructions given by development must be completed in totality. To successfully exit from a production migration, the entire production database version must be migrated into the production environment.

1.8.1 Exit Exception Criteria

Exit exceptions for this process must be handled on a case by case basis. When an exception occurs to this process, it will most likely be needed because a requirement has changed or was originally misunderstood. In the event an exception is needed, this process description will most likely need to be updated to include the circumstances surrounding the exception.

1.8.2 Exit Exception Handling

Because the exceptions are handled on a case by case basis, the Operations and Development Managers will need to be involved in making decisions about the part of this process description for which they are responsible.

1.9 Forms and Subject Examples

N/A

1.10 Reference Material

N/A

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1.11 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/25/00	Natalie Wyatt	Modified Style Template
11/1/98	Ron Carr, John Mulcahy	Implemented

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1. Group1 Software Usage

1.1 Overview

The MIS/DSS utilizes products from Group1 software to validate addresses and derive latitude/longitude information for eligibility and provider records. Periodically data files and programs are updated by Group1; this process describes the efforts required to install these new items.

1.2 Purpose

The purpose of this process is to establish a reference that can be utilized for installation each time new versions of Group1 data files and programs are released.

1.3 Scope

This process applies only to the Group1 software used in the Mainframe conversion process.

1.4 Responsibility and Enforcement

The author of the policy/process is responsible for the initial creation and updating of this document. The Development Manager will be responsible to ensure that this process is followed each time Group1 data file and program updates are released.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

Using this process requires development skills and knowledge of the MIS/DSS conversion cycle.

1.7 Entry Criteria

This process is entered whenever new Group1 data files or programs are received.

1.8 Procedure Steps

1.8.1 Data File Replacement

Group1 zip code and locational data files remain effective for a 90-day period. At the end of this time period, a code is read by the Group 1 software from the data file causing a program abend to

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occur if the data is too old. The data files used are the Name/Address master and the GeoGraphic Coding Plus database.

1.8.1.1 Process to install

Group1 provides Job Control Language (JCL) that deletes older versions of these files and unloads and installs the newer versions. The JCL must be modified to alter the names of the two files to match the account naming conventions. Once all names are properly recorded, the JCL is executed. This results in the actual creation of the two physical data files that are then available for use in the Group1 Code1 and Geo-Code programs.

1.8.2 Program Updates for Code1 and Geo-Code

There are two Group1 programs used by the MIS/DSS – Code1 (Version 2.2) and Geo-Code (Version 3.3). Each of these programs utilize copybooks of MIS/DSS record layouts (e.g., Provider and Eligibility) as well as internal copybooks utilized and created specifically by Group1 for either of the two programs. In the event that a MIS/DSS record layout is changed (e.g., new field added), a recompilation of each of the two programs is required as well as a modification to the execution JCL to indicate the new record length to the Group1 Software. In the event of Code1 or Geo-Code copybook changes, recompilation is required as well as investigation of the cause (i.e., new functionality impact to MIS/DSS programs). All programs are received as loadable modules from Group1 and are not modified by MEDSTAT. If a new version of the program is received, MEDSTAT must migrate and promote the program and recompile with all applicable copybooks. Section 1.10 below denotes the MIS/DSS copybooks and jobs related to the Group1 software.

1.9 Exit Criteria

A successful completion of this process will be recognized by a satisfactorily completion of the validation tests executed to measure the impact of this change.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

MEDSTAT production location for Group1 executable JCL
HM.PMED.G1GCM.V3R30.JCLLIB (Geo-Code) or
HM.PMED.G1C1.V2R20.JCLLIB (Code 1)

1.10.1 Group1 Copybooks:

P9IN - LINKAGE SECTION FOR GROUP1 C1MATCHL INPUT

P9OUT - LINKAGE SECTION FOR GROUP1 C1MATCHL OUTPUT

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P9AUDIT - LINKAGE SECTION FOR GROUP1 C1MATCHL AUDIT
 CSPRM - LINKAGE SECTION FOR GROUP1 C1CTYLKP
 GCIPARM - LINKAGE SECTION FOR GROUP1 GCP10 INPUT
 GCOPARM - LINKAGE SECTION FOR GROUP1 GCP10 OUTPUT
 GCAPARM - LINKAGE SECTION FOR GROUP1 GCP10 AUDIT

1.10.2 MIS/DSS MEDSTAT Custom CopyBooks

CRVPMEX - PROV-MASTER-EXTRACT-RECORD Input
 CRVMCPC - MANAGED-CARE-PGM-PROVIDER Input
 CRPINPT1 – Eligibility Input

1.10.3 MIS/DSS Source

MIS/DSS Program
 MDU001 – Geo-Code Utility Program

1.10.4 MIS/DSS Subroutines

CSBEROR - SUBROUTINE TO LOG ERRORS
 C1MATCHL - SUBROUTINE TO ANALYZE AND MATCH ADDRESSES
 C1CTYLKP - SUBROUTINE TO STANDARDIZE CITY STATE FOR ZIP
 GCP10 - SUBROUTINE TO GET LATITUDE AND LONGITUDE

1.10.5 MIS/DSS Procs

HMDE0310 Eligibility Geo-Coding
 HMDV0700 Provider Geo-Coding

1.11 Reference Material

N/A.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/24/00	John Mulcahy	Policy/Process Established

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
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1. ESP Build/Update Setup

1.1 Overview

This document describes how the batch flow executes for DataScan Build/Update processes.

1.2 Purpose

The ESP Build/Update Setup Process assists the database administrator in performing the necessary steps to build and update the MIS/DSS. This document will also serve to educate those new to the production control team or any other interested parties.

1.3 Scope

This document will be used by any project team member responsible for or involved in the building or updating the production Mainframe or NT Server MIS/DSS databases.

1.4 Responsibility and Enforcement

The Operations team is responsible for carrying out this procedure.

1.5 General Considerations

All MEDSTAT production batch process will execute using Execution Scheduling Processor (ESP) software.

Due to the changing nature of the project requirements from phase to phase, the contents of this document are highly volatile. It is always best to refer to the online version of this document to ensure you view the latest information.

1.6 Skill Requirements

Individuals involved in the execution of this process must be knowledgeable in DataScan, DB2, TSO and ESP.

1.7 Entry Criteria

This procedure is initiated when MEDSTAT and DHS have approved the Pre-Release package and the build or update is scheduled to begin.

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1.8 Procedure Steps

This procedure describes the steps required for executing Build/Update jobs using ESP. The following table contains the steps for this procedure.

Step Number	Step Description
1	Update ESP Application Proc(s) with the current phase/DB update name. The ESP Procs are located on the Mainframe with the PDS name of HM.PMED.ESP.DS.PROC. The members in this PDS are identified by the naming convention of B5 and U5. The Build Procs will start with B5 and the Update Procs will start with U5. Each application will have its own Proc. For example CLMS, ELIG, PROV, CAP, HRO, and MCPF.
2	Update ESP symbolic member with the current phase/DB update name and approved input dataset names. The ESP Symbolic PDS is located on the Mainframe as HM.PMED.ESP.DS.SYMBOLIC. The following members should be updated. <ul style="list-style-type: none"> • Build - B5INPUT for input datasets and B5JCL for phase/DB update information. • Update - U5INPUT for input datasets and U5JCL for phase/DB update information.
3	Logon to ESP and submit event DSCAN.BLD_SUB for Build jobs and DSCAN.UPD_SUB for Update jobs. This event will submit all DataScan jobs by application name. Refer to Attachment 1 of this document for ESP application names.

The following pages contain diagrams of the DataScan Build/Update process and ESP application procedure names.

1.9 Exit Criteria

This process can be exited once the DataScan Build/Update jobs have completed and the Data Management Team has successfully completed validation tests. The Database will then be released for end-user access.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

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1.10 Forms and Subject Examples

See attachments

1.11 Reference Material

1.12 Policy History

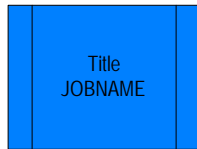
Established/Revision Date	Established/Revised By	Change Description
5/10/00	Natalie Wyatt	Policy/Process Established

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Attachment 1. DataScan Build/Update Process Flow

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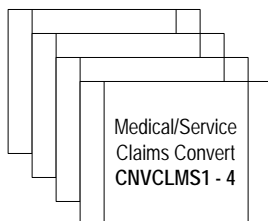
DataScan Batch Flow - Legend



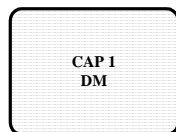
This box represents a DataScan custom job. It contains the job title and job name. The job name must appear in uppercase and with a bold font. Each job is a member of an ESP application. Each ESP application has a unique color.



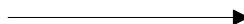
This box represents a DataScan core job. It contains the job title and job name. The job name must appear in uppercase and with a bold font. Each job is a member of an ESP application. Each ESP application has a unique color.



This diagram represents multiple instances of the same job. They are run in parallel to speed up processing. The logic executed is the same in each job instance. The only difference is the input and output data sources. They can be run in parallel depending on the computer resources available. Multiple instances of core jobs are noted in a similar fashion but using the core box object with multiple instances.



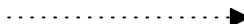
This object represents a validation points within the process that is performed by the responsible Data Manager



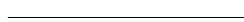
This line connector indicates the next job in the process for execution. Concurrency is determined by available computer resources.



This line connector indicates the next job in the process for execution that is on the critical path. Jobs on the critical path are scheduled first when considering concurrent jobs. Critical path jobs will execute the longest.



This line connector indicates a dependency on a job completing in a different application. For example, The Drug Claims Convert job cannot start until the Provider Background load job is completed.



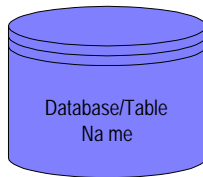
This line connector indicates when a Data Management validation step is performed after successful completion of the job. It connects to the Data Manager validation box noted above. This is separate from the ongoing validation steps performed by the Operation Team during the build/update process

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DataScan Batch Flow - Legend (cont...)



This notation is affixed to the bottom of a custom or core job box to indicate the job is restartable.



This object indicates a database or table. The title of the database or table name is located inside the object.

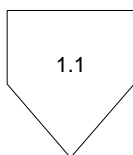


Diskette Input

The diskette object indicates data for this process is contained on a PC diskette.

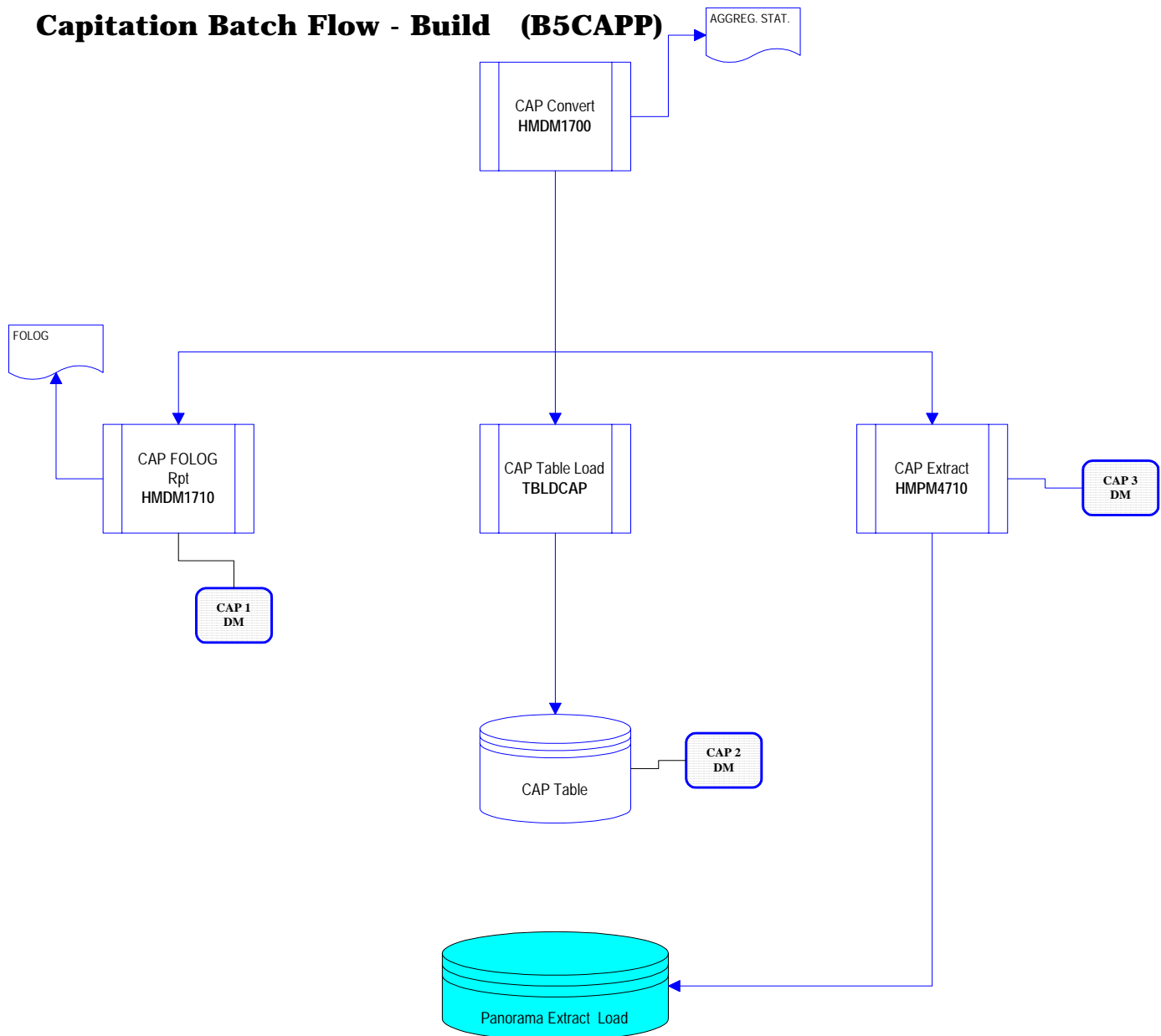


The report object indicates that one or more reports will be generated by the job. This object indicates two reports are created. The DDNAME is contained in each report object diagram. The DDNAME is the portion of the JCL that indicates the file attributes including file name. The filename is where the report is written by the program.



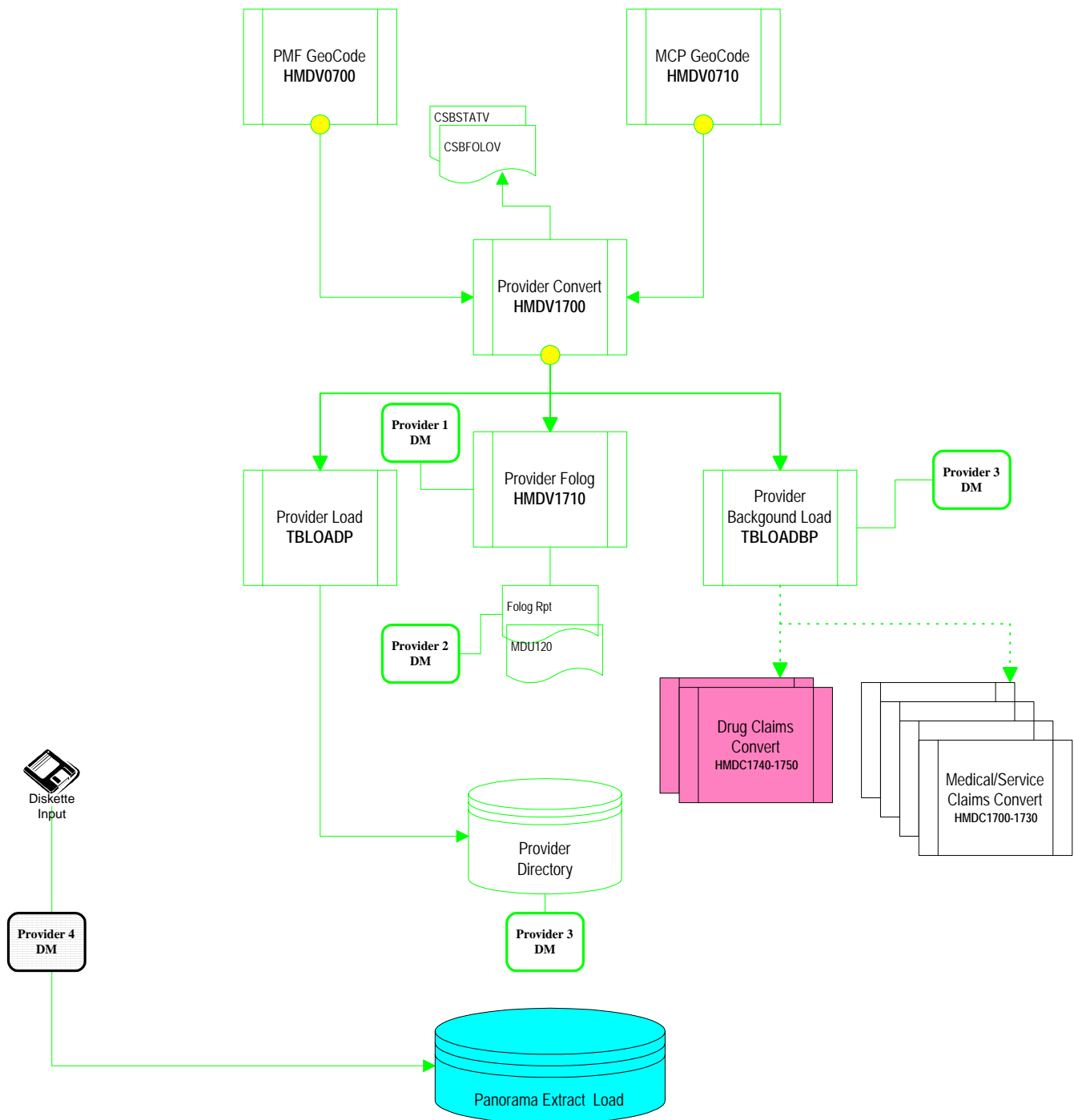
This is the off-page connector object. This object is used to indicate that part or all of the job flow continues on another page. Each connector has a unique number identifying a pair of related connectors.

Capitation Batch Flow - Build (B5CAPP)

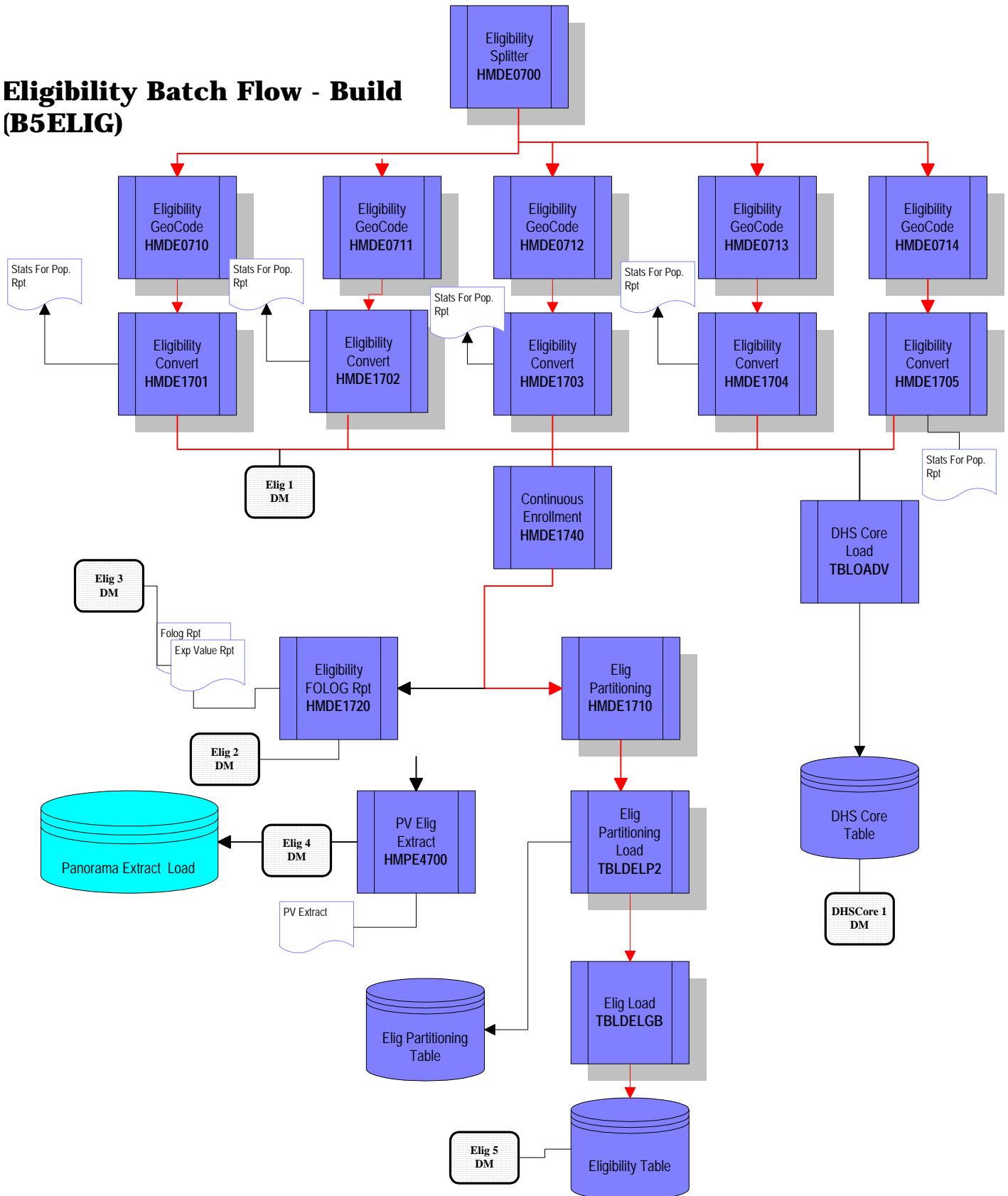


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Provider Batch Flow - Build (B5PROV)

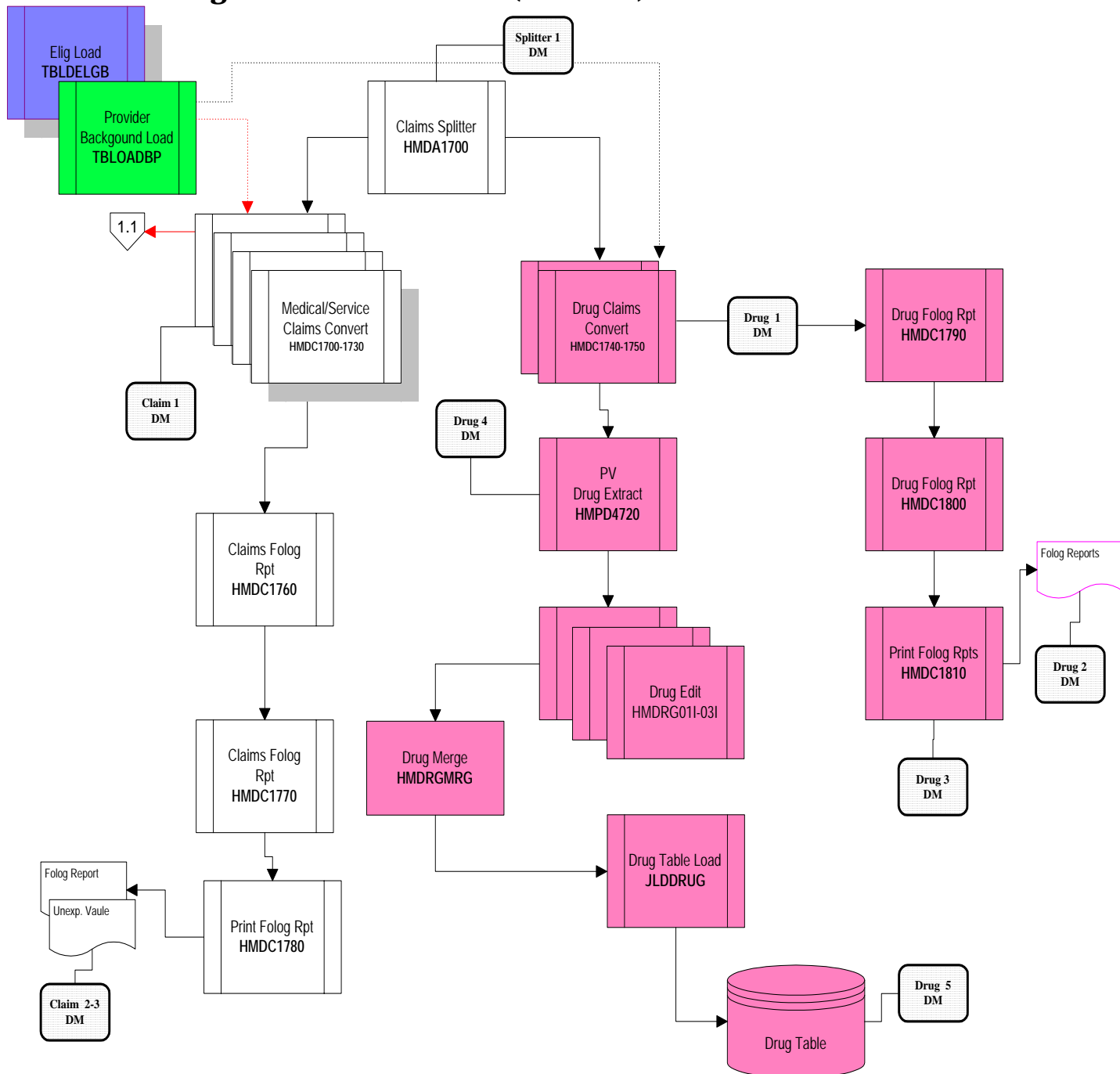


Eligibility Batch Flow - Build (B5ELIG)



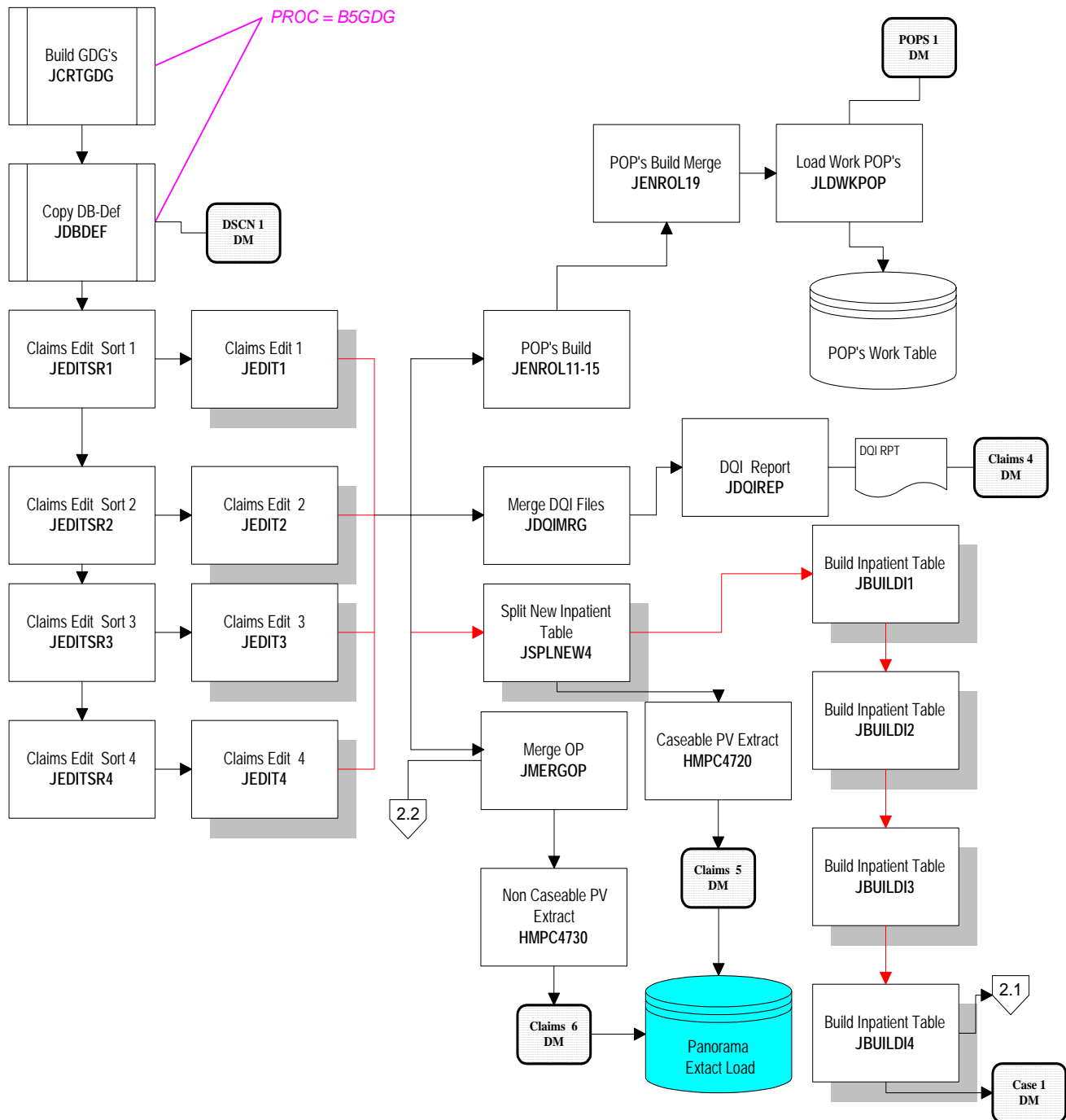
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 12

Claims/Drug Batch Flow - Build (B5CLMS)



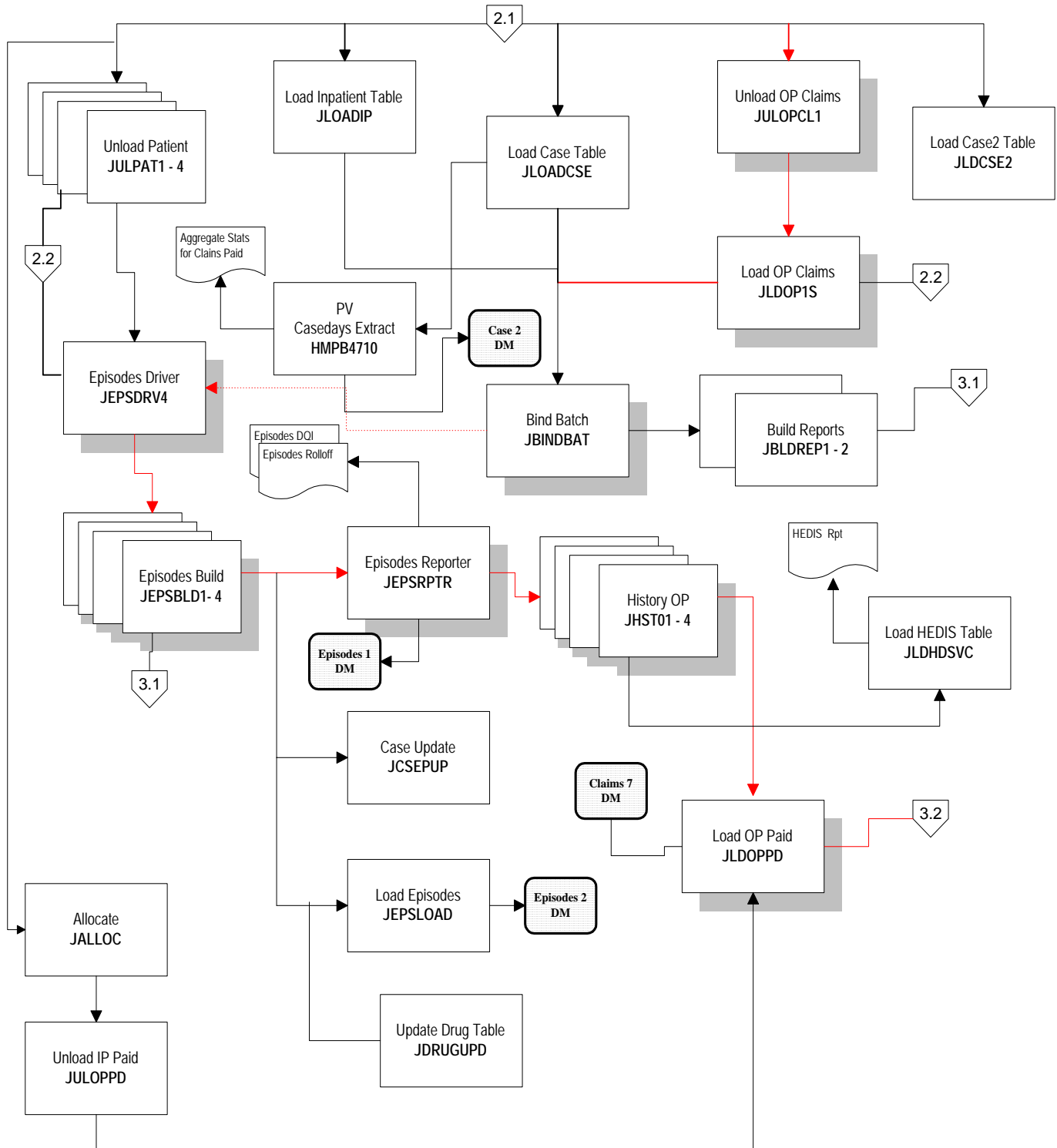
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 13

Claims/Drug Batch Flow - Build (B5CLMS)



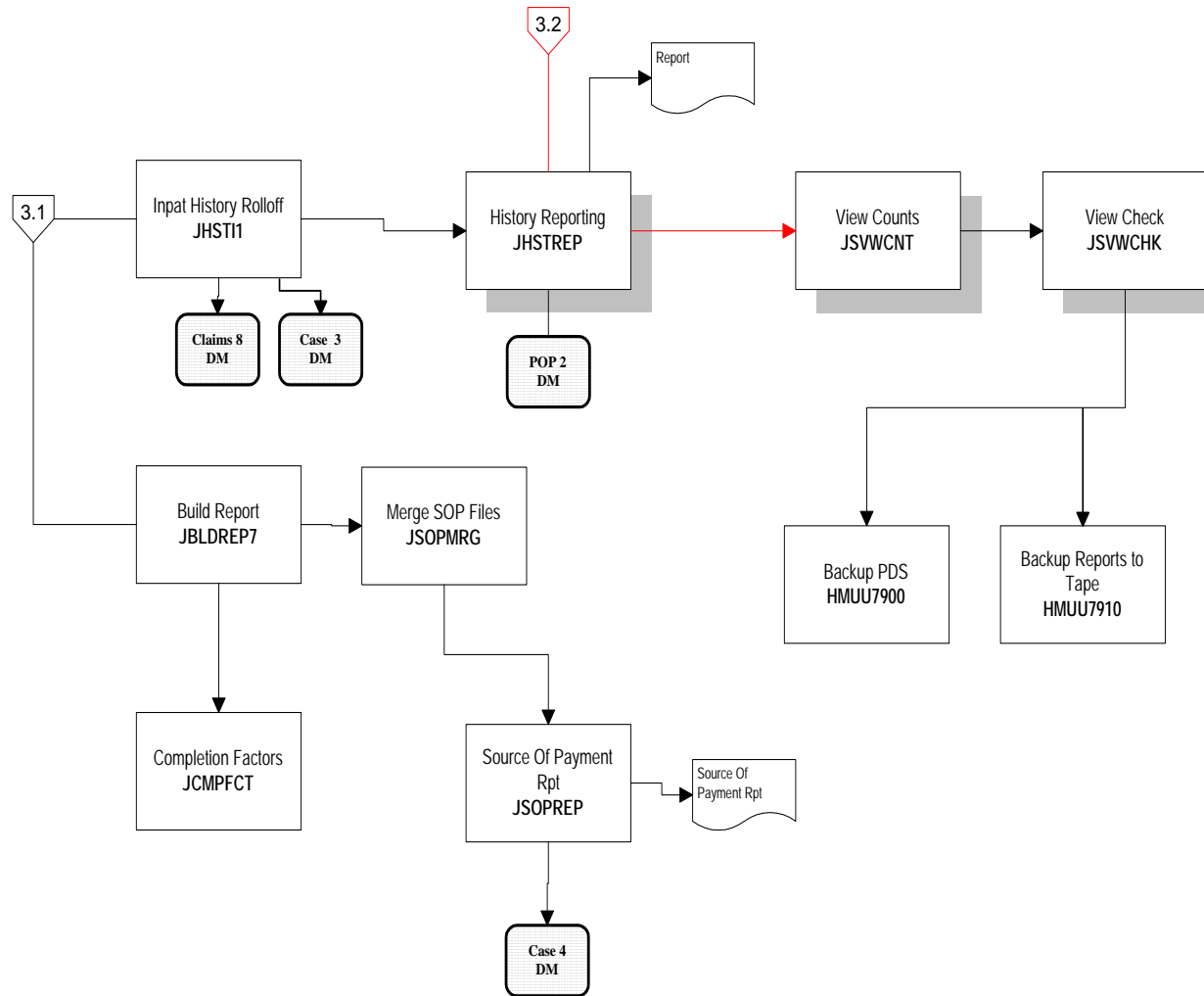
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 14

Claims/Drug Batch Flow - Build (B5CLMS)



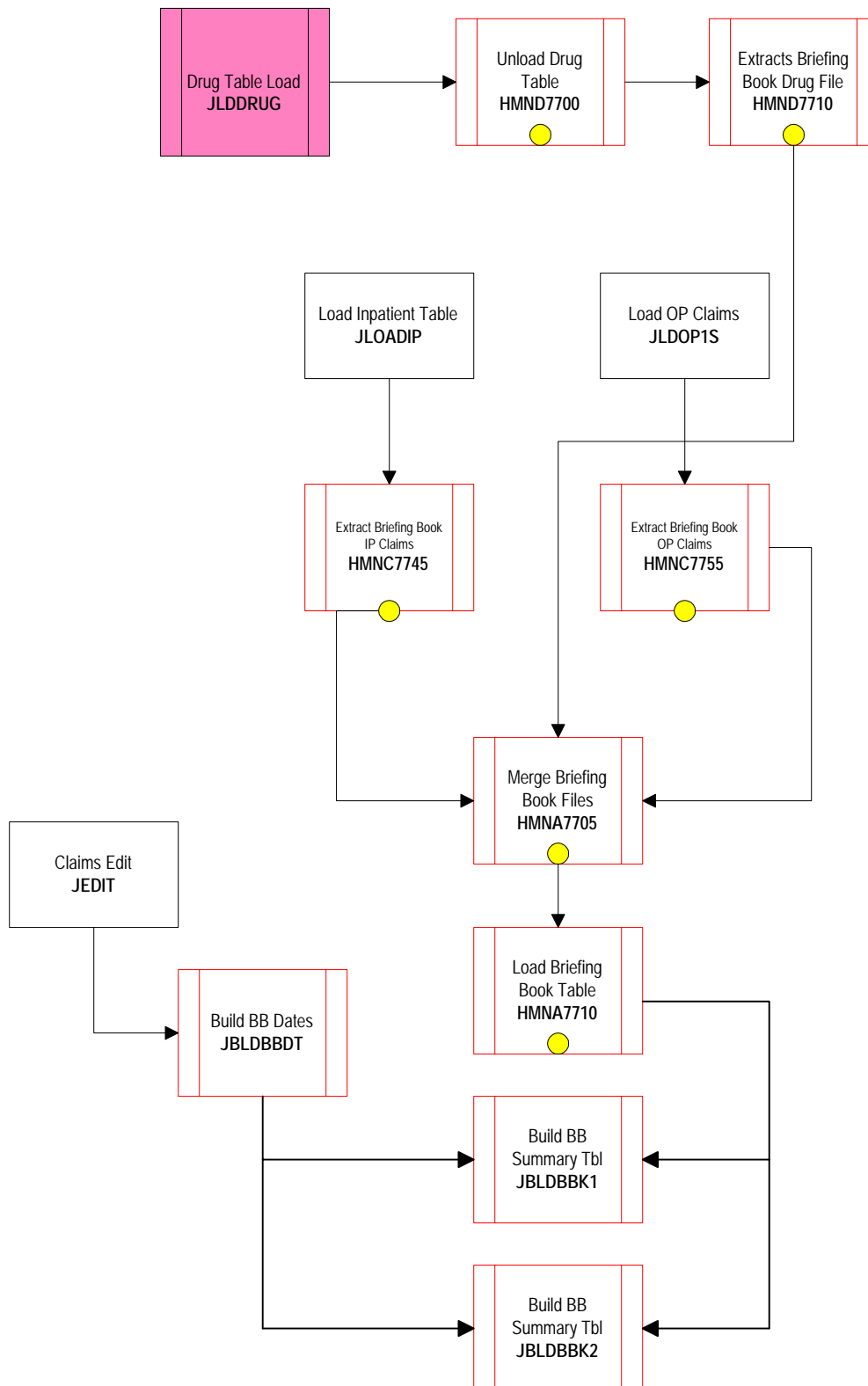
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
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Claims/Drug Batch Flow - Build (B5CLMS)



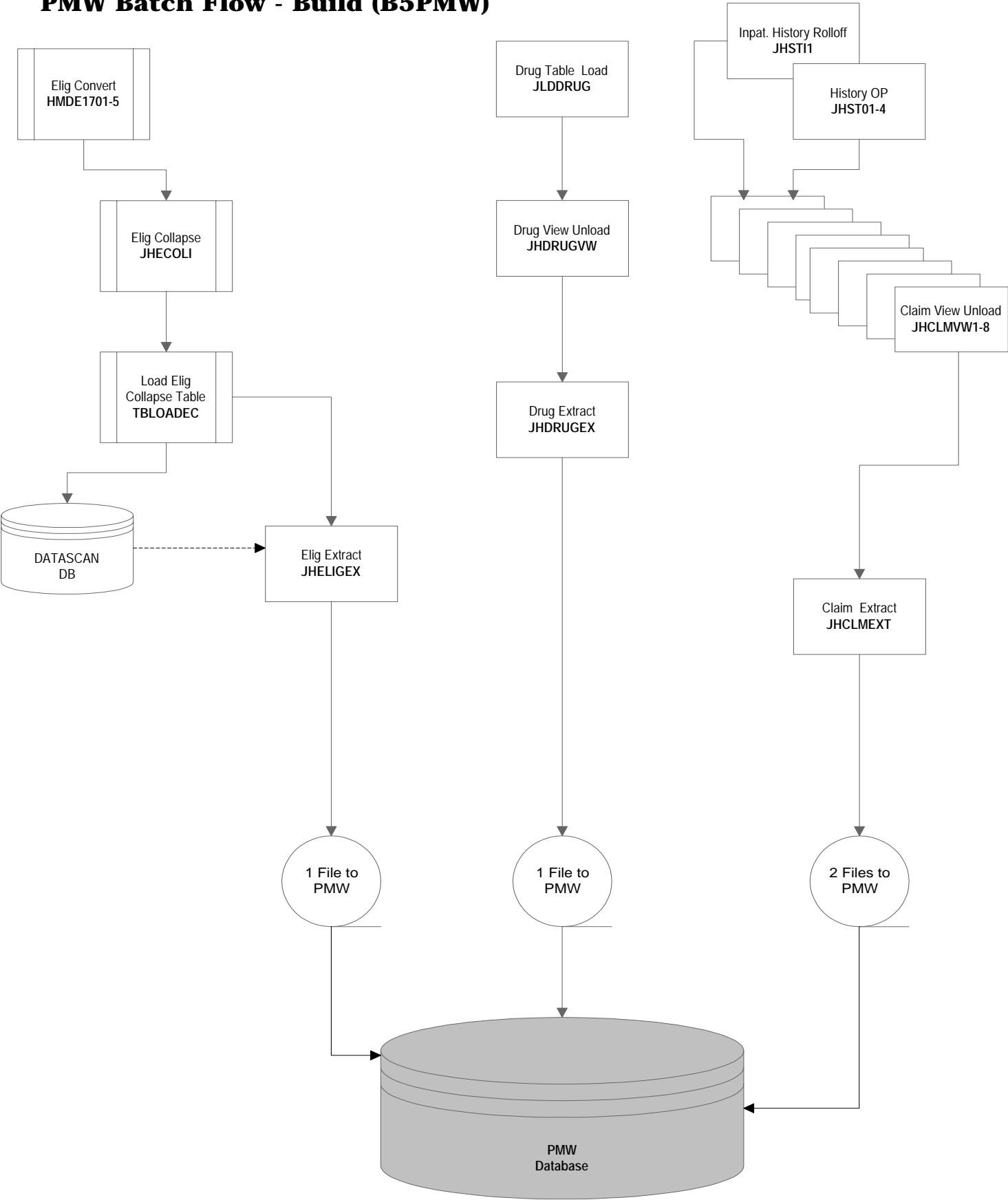
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 16

Briefing Book Batch Flow - Build (B5BRBK)



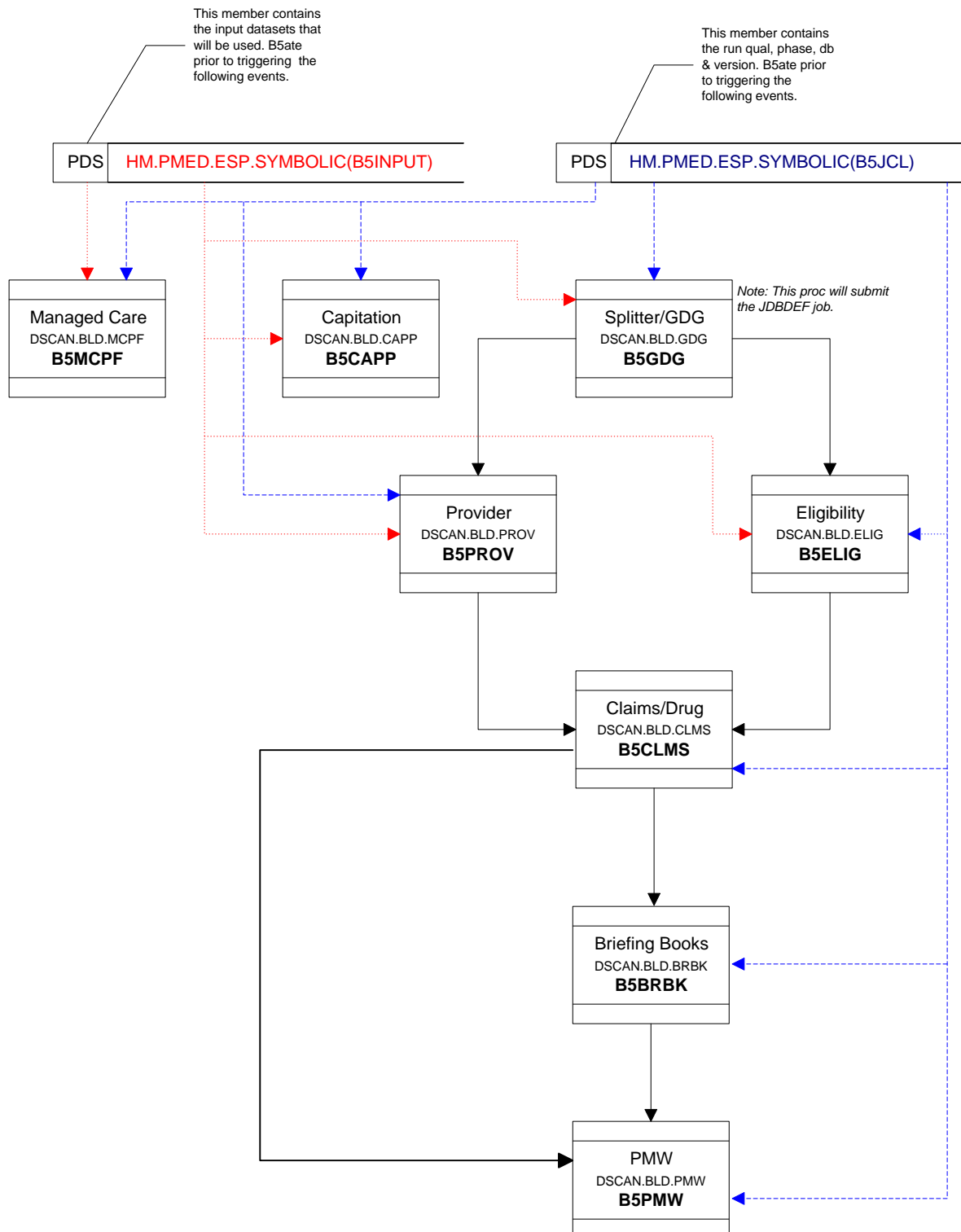
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
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PMW Batch Flow - Build (B5PMW)



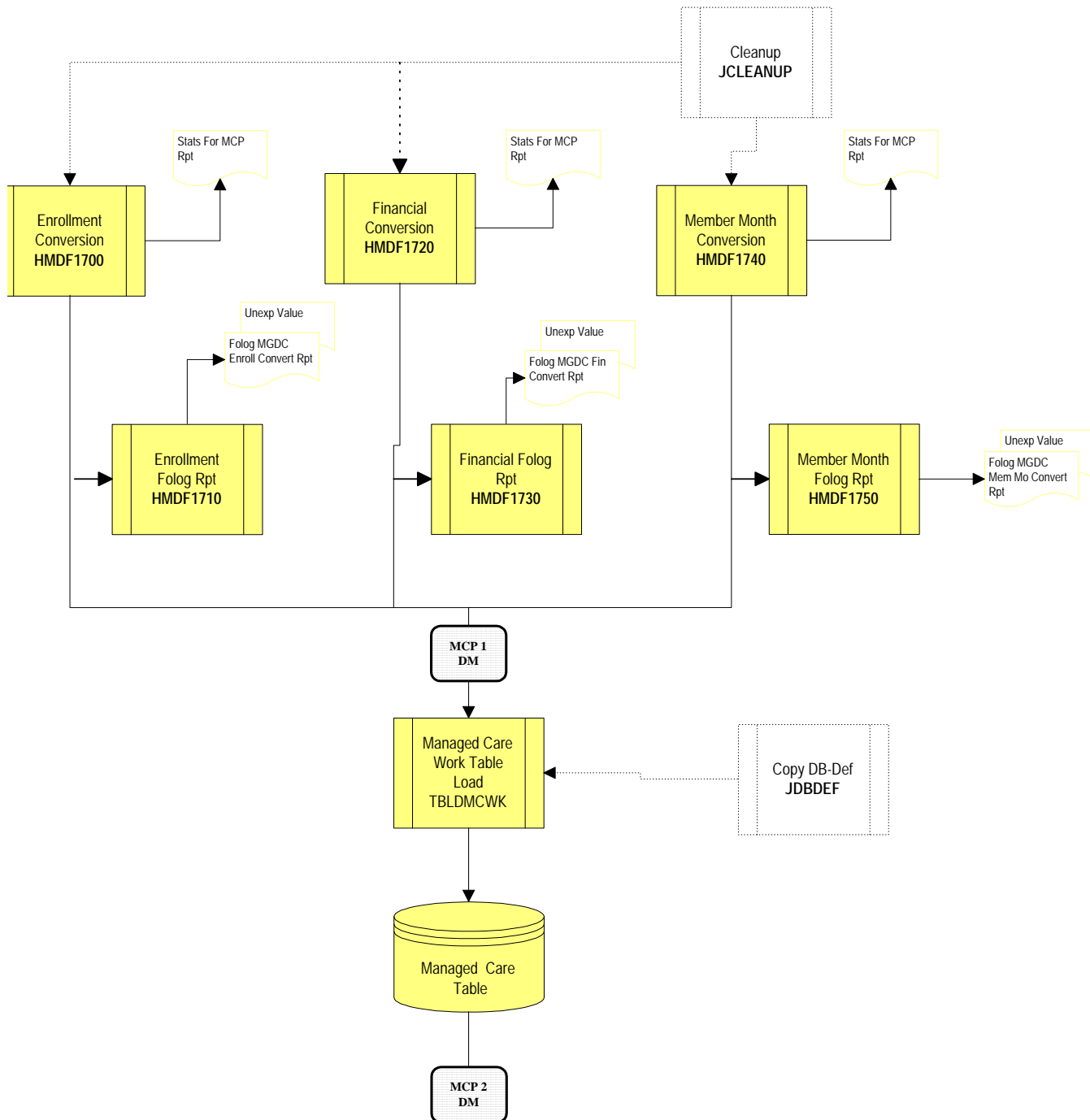
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 18

ESP PROCEDURE FLOW - BUILD



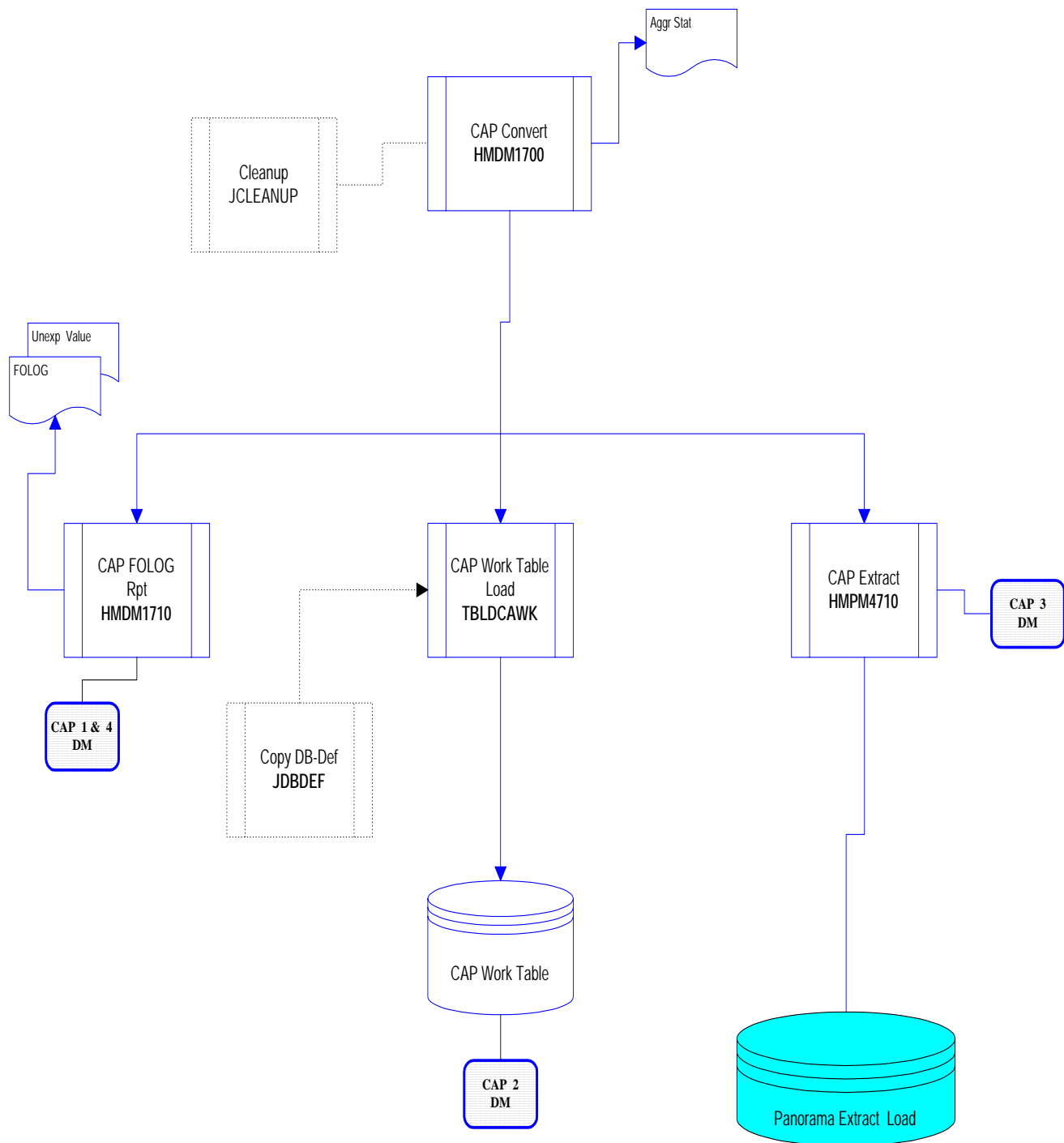
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 19

ICPF Batch Flow - Update (U5MCPF)



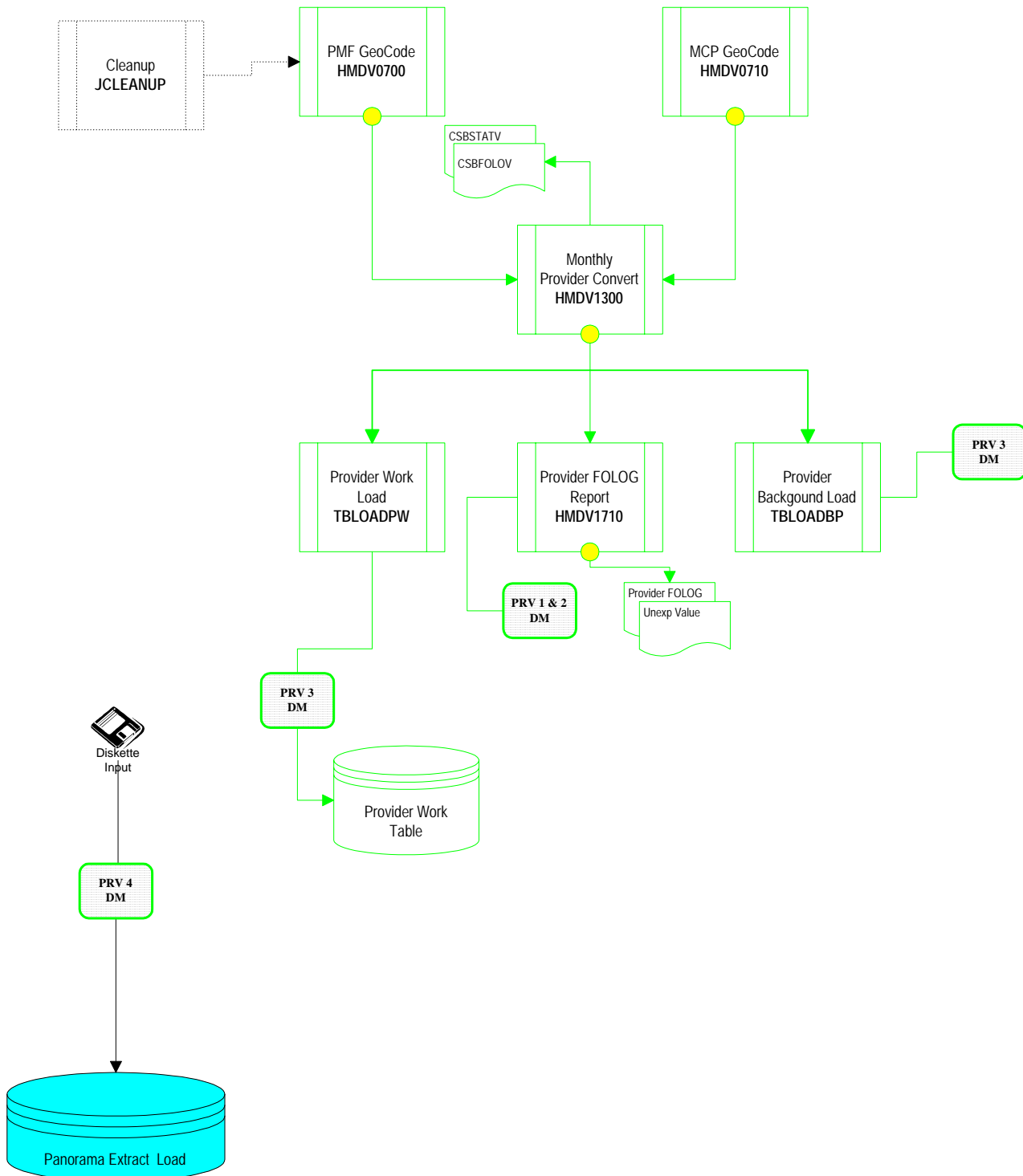
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 20

Capitation Batch Flow - Update (U5CAPP)



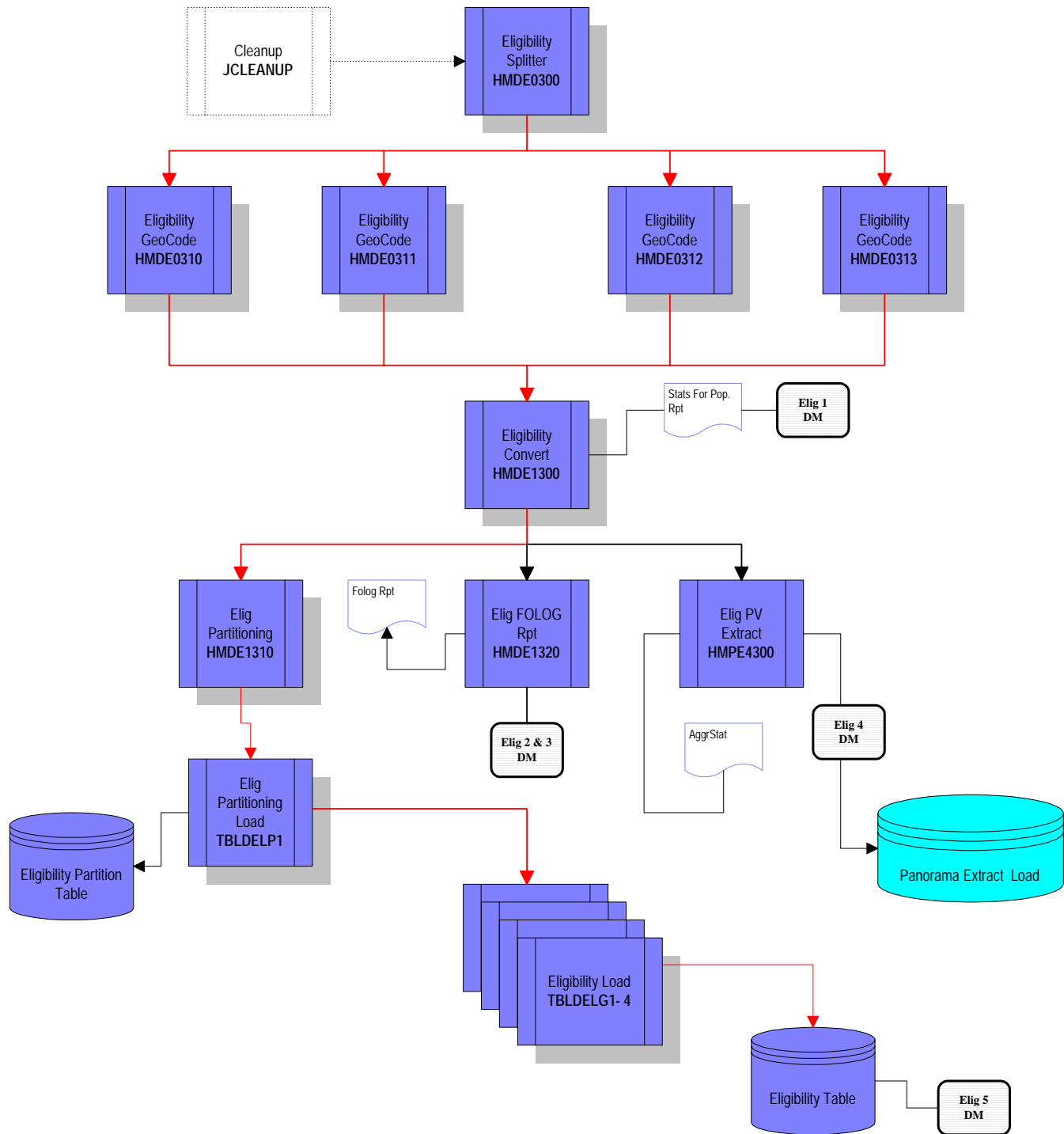
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 21

Provider Batch Flow - Update (U5PROV)



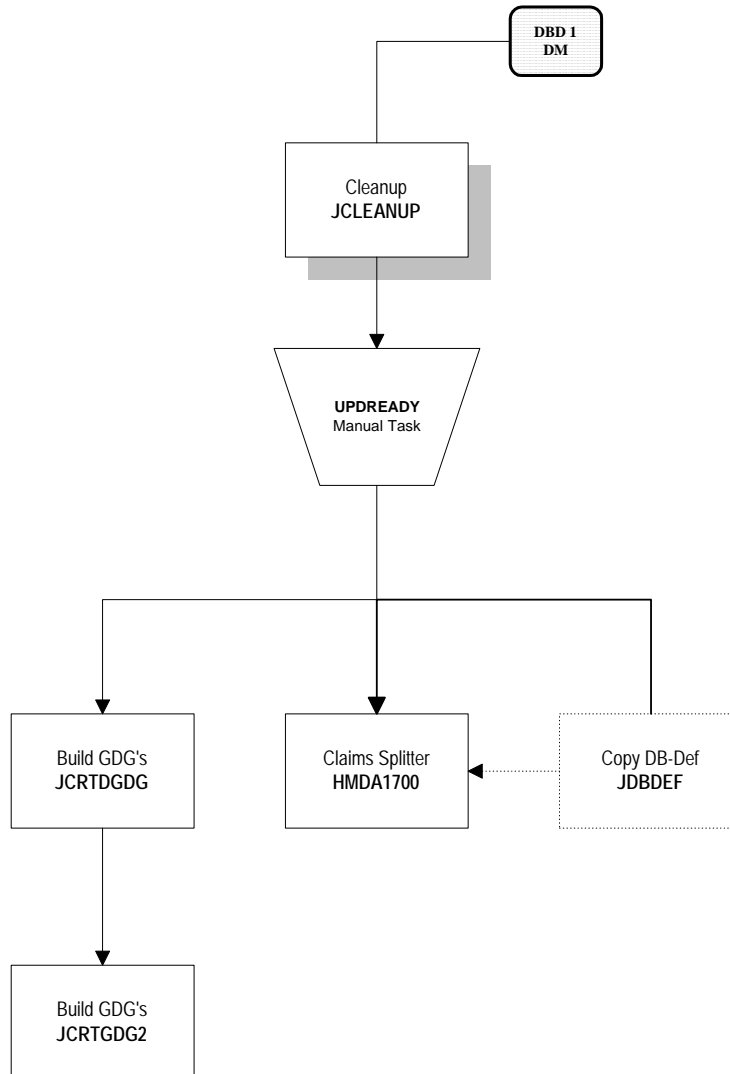
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 22

Eligibility Batch Flow - Update (U5ELIG)



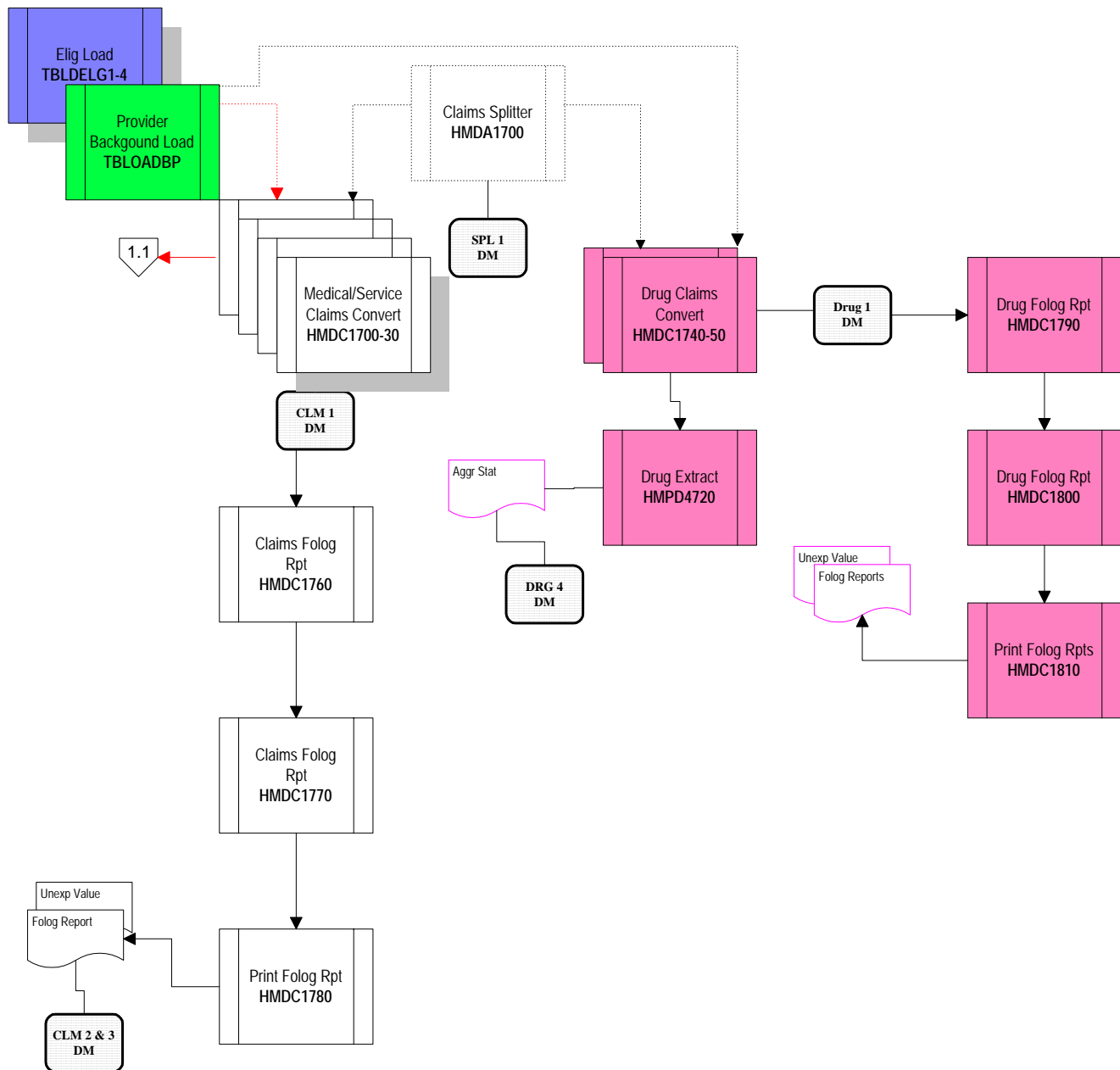
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
Version: 1.0	Date: March 16, 2001	Page: AHP 10- 23

CLEANUP & GDG UPDATE FLOW - (U5GDG)



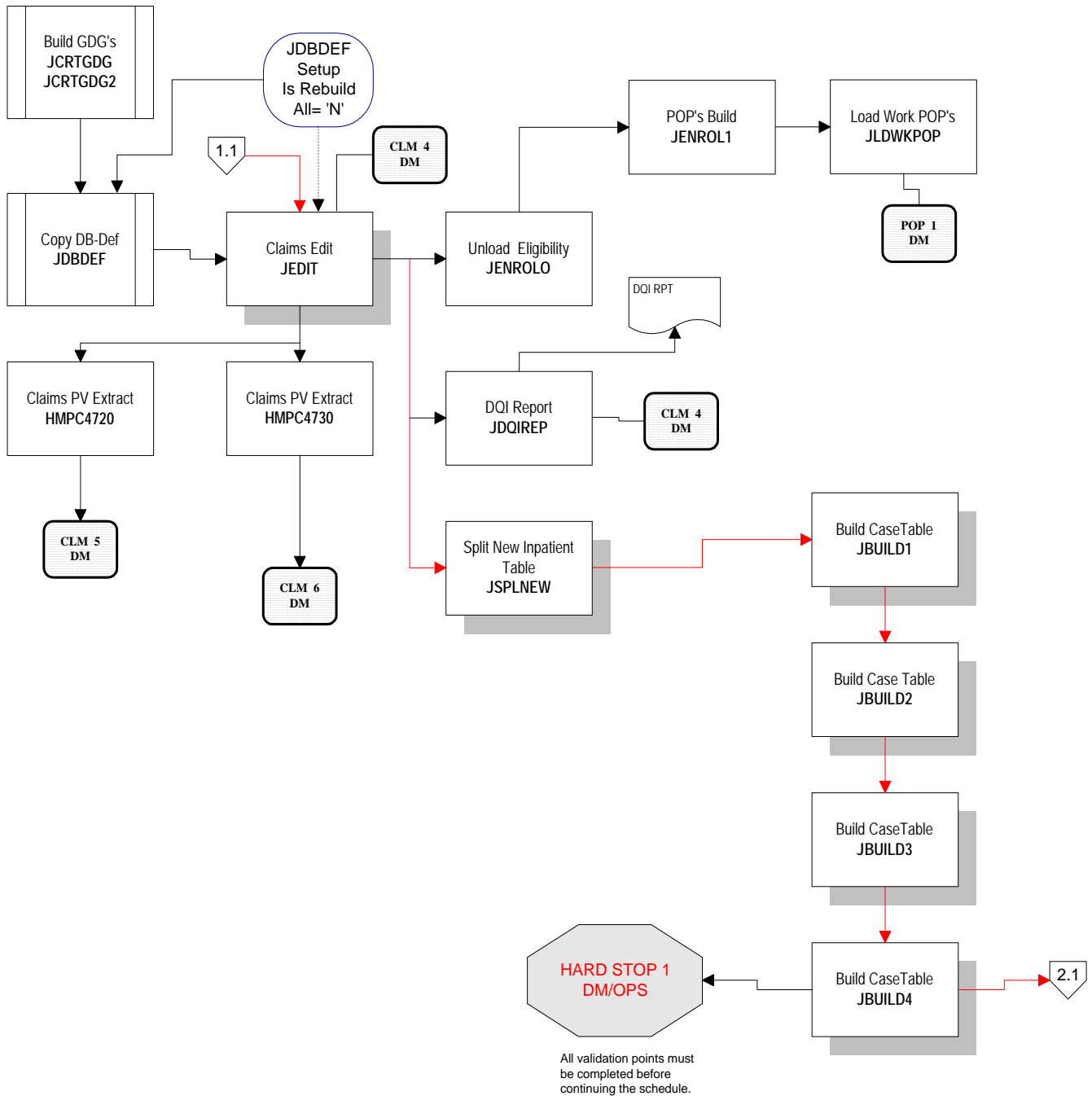
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
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Claims/Drug Batch Flow - Update (U5CLMS)



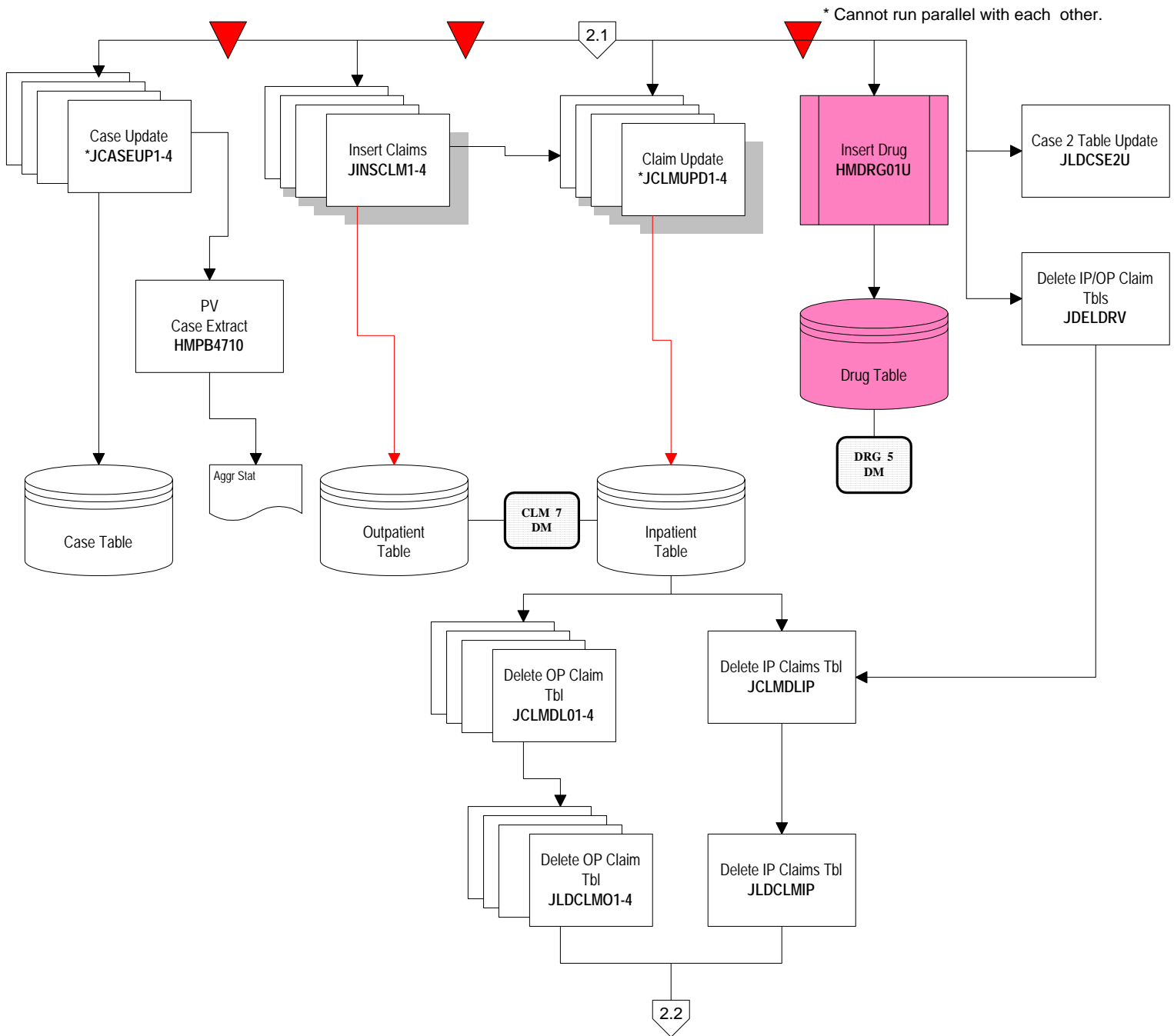
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
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Claims/Drug Batch Flow - Update (U5GDG & U5CLMS2)



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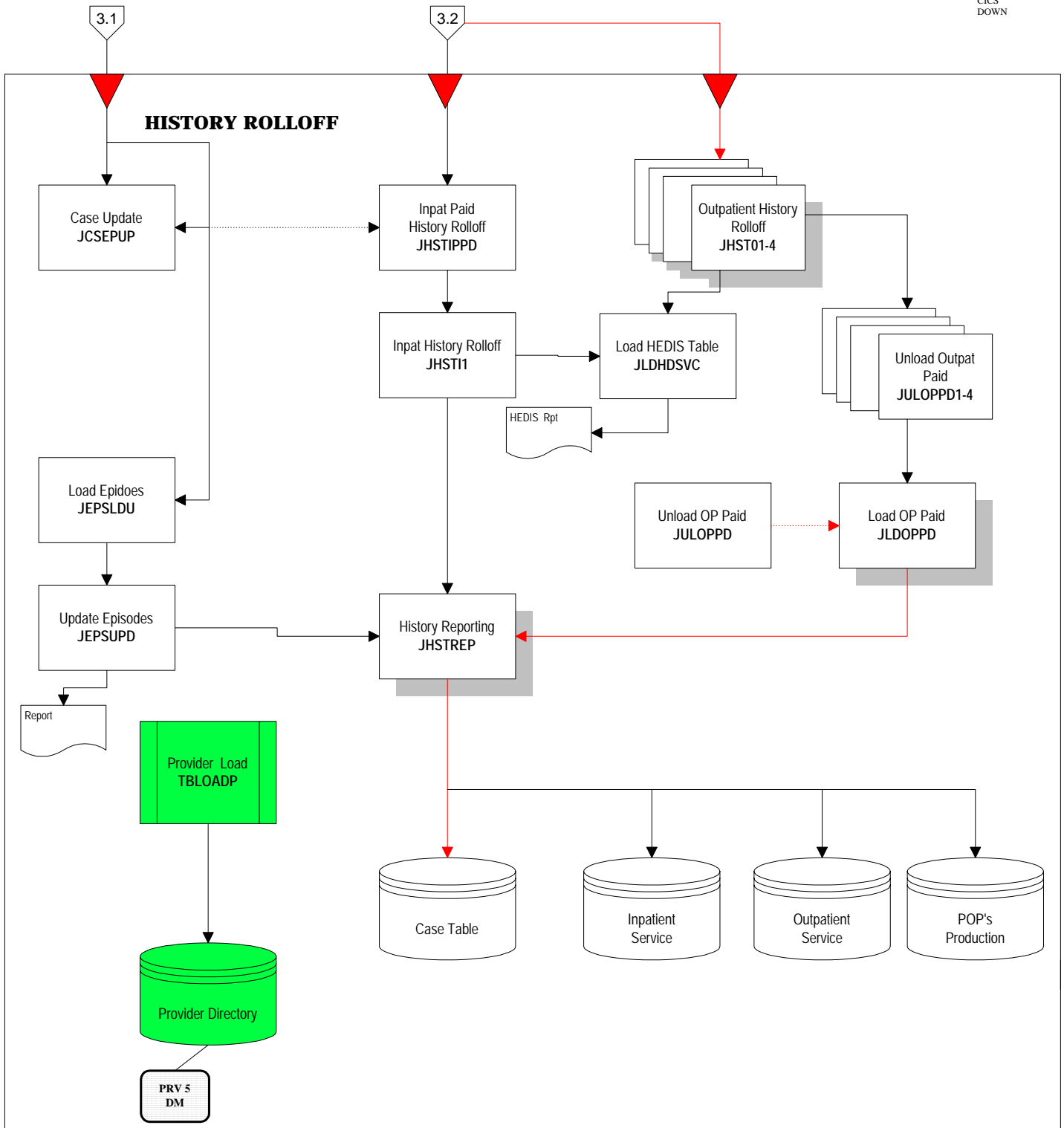
Claims/Drug Batch Flow - Update (U5CLMS2)



CICS UP

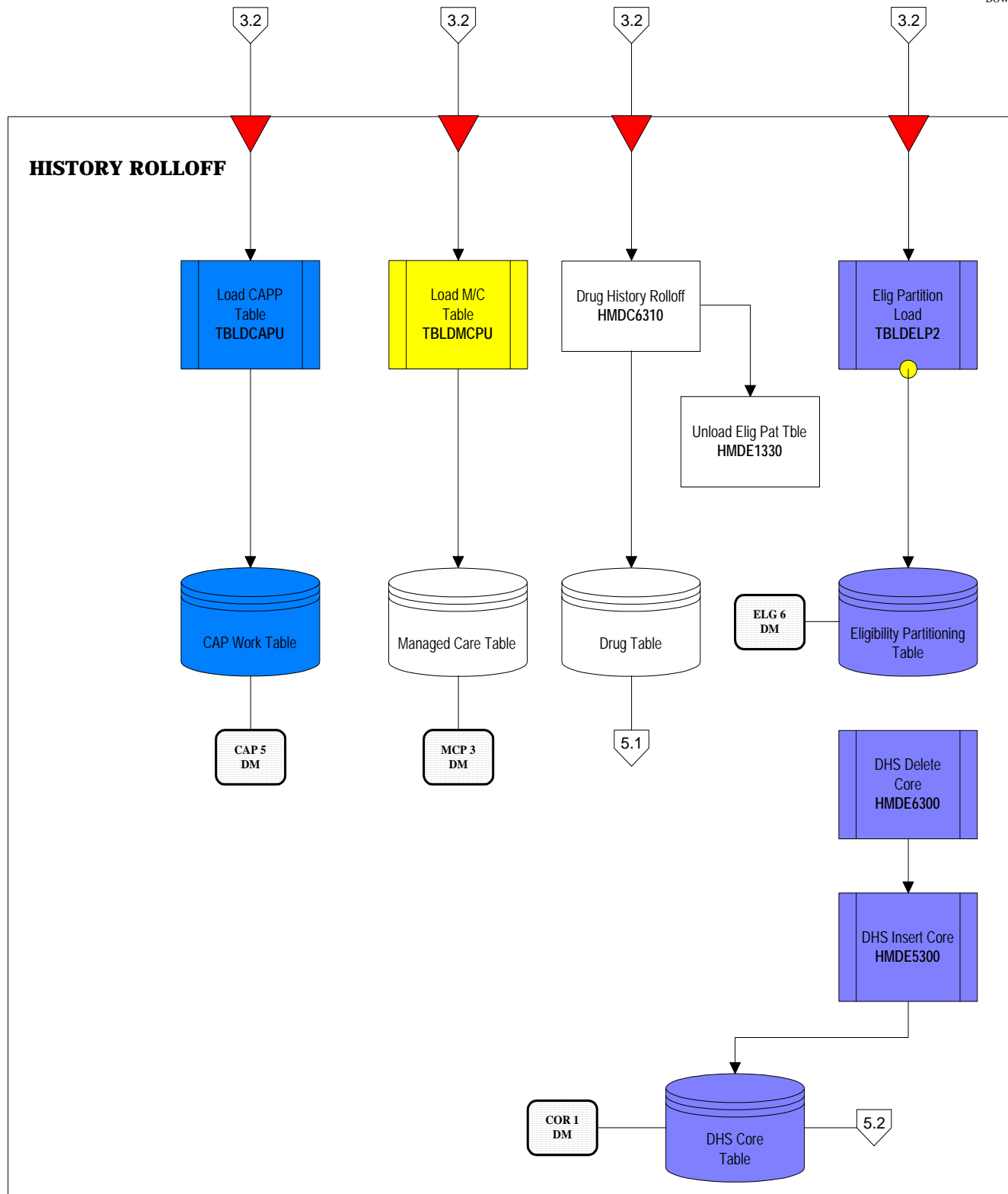
Claims/Drug Batch Flow - Update (U5HRO)

CICS
DOWN



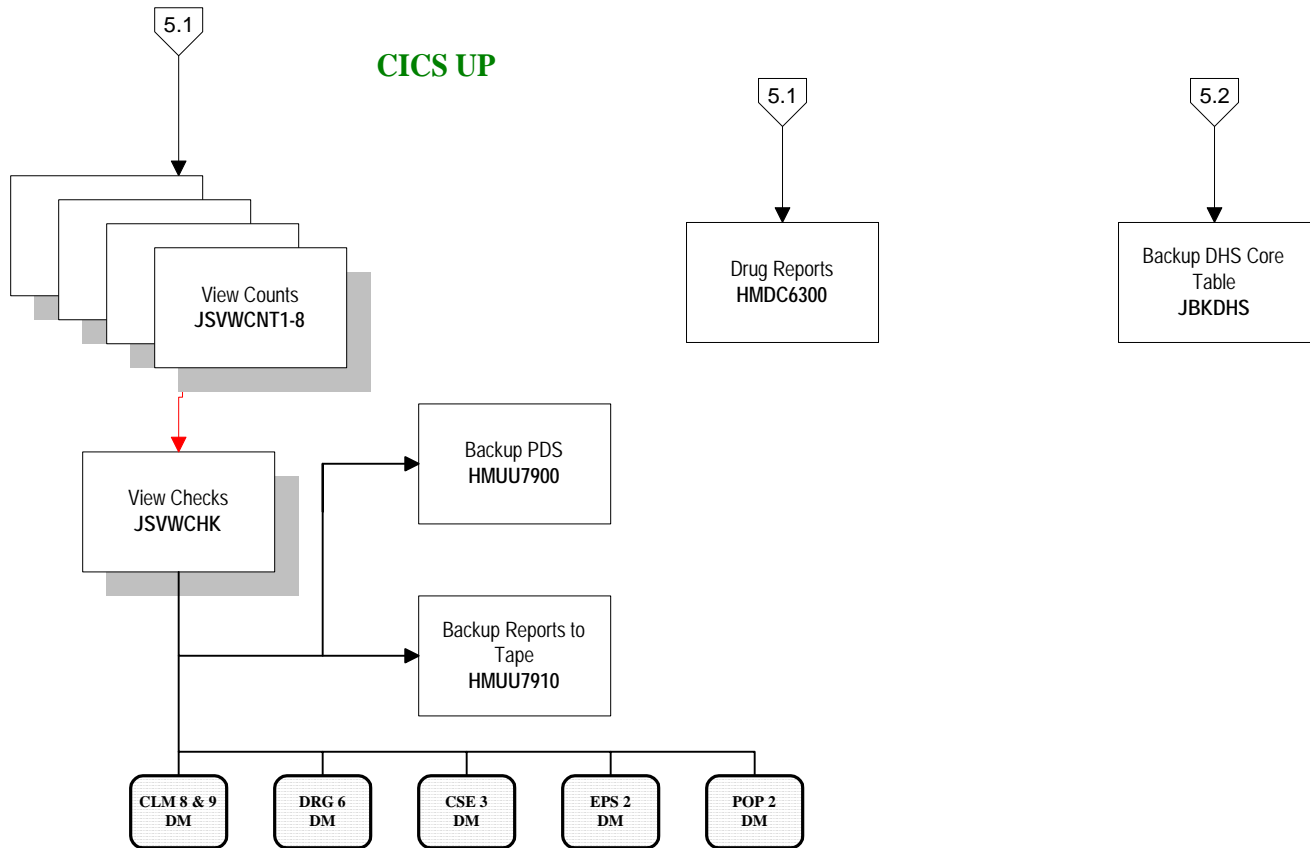
MEDI-CAL MIS/DSS	Policy/Process Section: Adhoc Processes	
POLICY/PROCESS	Policy/Process Title: ESP Build/Update Setup	
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Claims/Drug Batch Flow - Update (U5HRO)



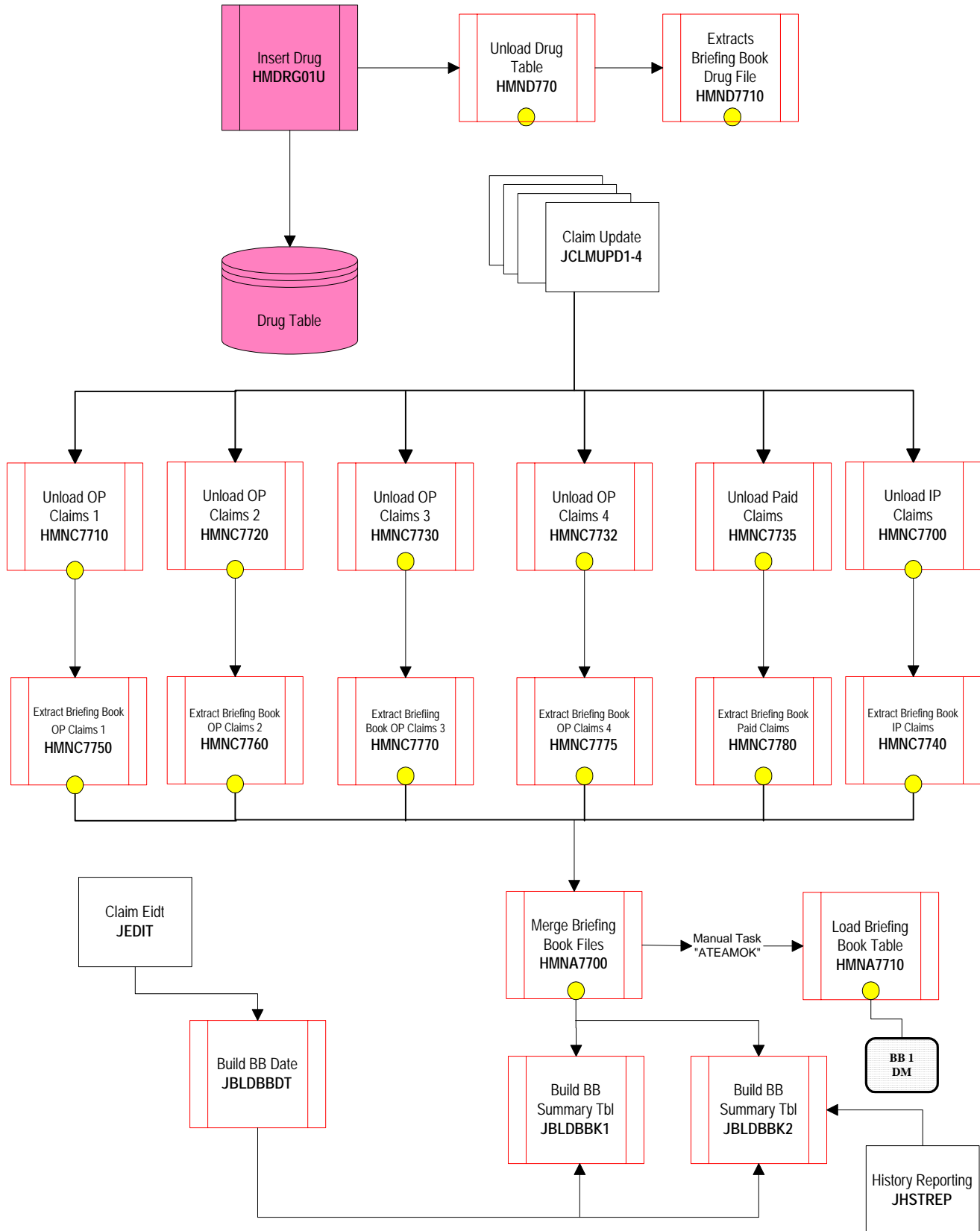
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
	Policy/Process Title: ESP Build/Update Setup	
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Claims/Drug Batch Flow - Update (U5HRO)



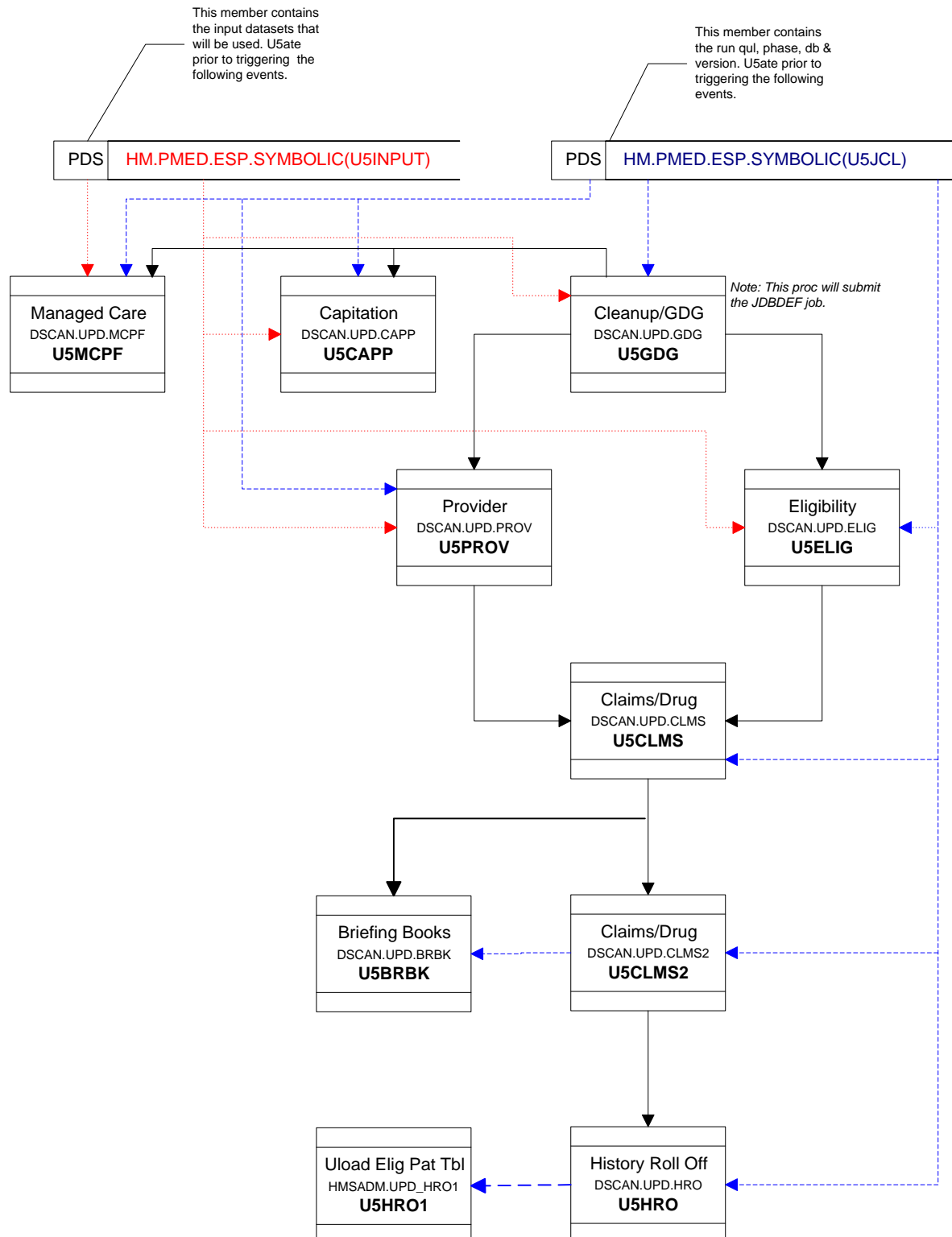
MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes	
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Briefing Book Batch Flow - Update (U5BRBK)



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ESP PROCEDURE FLOW - UPDATE



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Attachment 2. Overview of the Build Process

Type	Job Name	Job Description
CU	HMDF1700	Enrollment Conversion Converts Manage Care Enrollment raw data to the format used by the DataScan System Database.
CU	HMDF1710	Enrollment Folog Report Produces the Failed Operations Log report from failure encountered during the conversion process of the raw data.
CU	HMDF1720	Financial Conversion Converts Manage Care Financial raw data to the format used by the DataScan System Database.
CU	HMDF1730	Financial Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMDF1740	Member Month Conversion Converts Manage Care Member Months raw data to the format used by the DataScan System Database.
CU	HMDF1750	Member Month Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	TBLOADMC	Manage Care Table Load Loads the Manage Care table.
CU	HMDM1700	Capitation Conversion Converts Capitation raw data to the format used by DataScan System Database.
CU	HMDM1710	Capitation Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMPM4710	Capitation PV Extract Extracts the Capitation file for Panorama View.

CU – Custom Job CO – Core Job

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
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Type	Job Name	Job Description
CU	TBLDCAP	Capitation Table Load Load the Capitation table.
CU	HMDV0700	PMF GeoCode Converts the Provider PMF raw data for GeoCode.
CU	HMDV0710	MCP GeoCode Converts the Provider MCP raw data for GeoCode.
CU	HMDV1700	Provider Conversion Converts the Provider GeoCode data to the format used by DataScan System Database.
CU	HMDC1710	Provider Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the GeoCoding data.
CU	TBLOADP	Provider Table Load Load the Provider data to Provider Directory table.
CU	TBLOADBP	Provider Background Load Load the Provider Background table
CU	HMDE0700	Eligibility Splitter Splits the 30-month Eligibility input into five files sorted by start-date.
CU	HMDE0710-714	Eligibility GeoCode GeoCodes Eligibility raw data file prior to the conversion process.
CU	HMDE1701-05	Eligibility Conversion Converts the Eligibility GeoCode data to the format used by DataScan Database.
CU	HMDE1710	Eligibility Partitioning Splits Eligibility data into several partitioning files to prepare for partitioning.
CU	HMDE1720	Eligibility Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.

CU – Custom Job CO – Core Job

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
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Type	Job Name	Job Description
CO	HMDE1740	Continuous Enrollment Merges the five converted Eligibility tapes, and re-sequences the continuous enrollments afterwards.
CU	HMPE4700	Eligibility PV Extract Extracts the Eligibility file for Panorama View.
CU	TBLDELP2	Eligibility Partitioning Load Load the ELIG_PART file to the ELIG_PART table in the Build process.
CU	TBLDELGB	Eligibility Load Loads the Eligibility table for the Build process.
CU	TBLOADV	DHS Core Load Load the DHS table.
CU	HMDC1700-30	Claims Conversion Converts Claims raw data to the format used by the DataScan System Database.
CU	HMDC1740-50	Drug Conversion Converts Drug raw data to the format used by the DataScan System Database.
CU	HMDC1760-70	Claims Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMDC1780	Claims Folog Report Prints the Failed Operations Log report to the printer.
CU	HMDC1790-1800	Drug Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMDC1810	Drug Folog Report Prints Failed Operation Log report to the printer.
CU	HMPD4720	Drug PV Extract Extracts the Drug file for Panorama View.

CU – Custom Job CO – Core Job

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
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Type	Job Name	Job Description
CU	HMDRG01I-3I	Drug Edit Sorts the converted Drug files, inserts them into the table.
CU	HMDRGMRG	Drug Merge Merge the 10 files from created in the Drug Edit jobstreams.
CU	JLDDRUG	Drug Table Load Loads the Drug table.
CU	JCTGDG	Build GDG's Creates empty generation dataset groups that will be used throughout the build process.
CO	JDBDEF	Copy DB_Def Copies the DB_Def table to the WRK_DB_DEF table, allocates an EMP_ID/MEMBER_NBR driver file for JBUILD1-4, and allocates empty versions of all generation data group (GDG) files required by the batch process.
CU	JEDITSR1-4	Claims Edit Sort Sorts the converted Claims files.
CO	JEDIT1-4	Claims Edit Sorts the converted Claims file by clustering index assigns core fields, and edits claims.
CO	JDQIREP	DQI Report Generates the Data Quality Indicators Report.
CO	JSPLNEW4	Split New Inpatient Sorts the NEWCLAIM file, which contains new claims, by EMP_ID/MEMBER_NBR. It splits this file into four sorted NEWCLAIM files.
CU	JMERGOP	Merge OP Merges the 16 OP Claims file from JEDIT1-4.
CU	JDQIMRG	Merge DQI Files Merges the 4 DQI files for JEDIT1-4.
CU	HMPC4720	Caseable PV Extract Extracts the Panorama View Caseable data.

CU – Custom Job CO – Core Job

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: ESP Build/Update Setup	
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Type	Job Name	Job Description
CU	HMP4730	Non Caseable PV Extract Extracts the Panorama View Non Caseable data.
CO	JENROL11-15	POP's Build Sorts the converted Population file by clustering index and edits the data into a loadable file.
CU	JENROL19	POP's Build Merge Merge the converted Population files into one file.
CO	JLDWKPOP	Work POP's Load Loads converted Populations to the WORK_POP table.
CO	JBUILD1-4	Build Inpatient Table Build cases from inpatient claims.
CO	JULPAT1-4	Unload Patient Creates four index files which identify the OP_CLAIM tables on which claims for a particular patient are located.
CU	JLOADIP	Load Inpatient Table Sort the Claim IP file. Loads the sorted file to the CLAIM_IP table.
CO	JLOADCSE	Load Case Table Sort the Case file. Loads the sorted file to the CASE_IP table.
CO	JULOPCL1	Unload OP Claims Unload from the OP_CLAIM1 tables all rows which should be retained at the end of the batch run.
CU	HMPB4710	Casedays PV Extract Extracts the Panorama View Case data.
CO	JLDOP1S	Load OP Claims Sorts and merge two OPCLAIM file from JMEROP and JULOPCL1 jobs, and loads to the OPCLAIM1 table.
CO	JLDCSE2	Load Case2 Table Updates the CASE2 table.

CU – Custom Job CO – Core Job

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Type	Job Name	Job Description
CO	JEPSDRV4	Episodes Driver Creates four driver files that contain EMP_ID/MEMBER_NBRs and flags to indicate on which OP_CLAIM table these can be found. These files will be used by JEPSBLD1-4 jobstreams to build episodes.
CO	JEPSBLD1-4	Episodes Build Build episodes and generate the History Rolloff, DQ and Archived Episodes report files that will be used later in the update process to generate those reports.
CO	JEPSRPTR	Episodes Reporter Produces the Episodes Data Quality Indicator Report.
CO	JBINDBAT	Bind Batch Binds all of the batch programs after JLOADCASE and JCLOADIP.
CO	JBLDREP1-2	Build Reports Gathers statistics from the IP_CASE and IP_CLAIM tables to compute completion factors and generate the Inpatient Data Quality Indicators and Case Statistics reports.
CO	JHSTO1-4	History OP Roll claims off the OP_CLAIM1-4 tables.
CO	JLDHDSVC	Load HEDIS Table Loads the HEDIS_SVC table.
CO	JCSEUP	Case Update Updates the EPISODES_ID field on the IP_CASE table when episodes are enabled.
CO	JEPSLOAD	Load Episodes Load the Episodes records constructed by JEPSBLD1-4 to the Episodes table.
CO	JDRUGUP	Update Drug Table Updates Drug table with EPSIODE_IDs.
CO	JLDOPPD	Load OP Paid Table Sorts and merges the four WRKOPPDn files from JHOST01-4 and loads them on the OP_CLM_PD table.

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CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CO	JALLOC	Allocate Creates empty IP_CLM_PD and OP_CLM_PD financial information files, which are used for input to JHSTREP.
CO	JULOPPD	Unload OP Paid Unloads form the OP_CLM_PD tables, all rows which should be retained at the end of the batch run.
CO	JHSTI1	Inpatient History Rolloff Rolls cases and claims off the IP_CASE and IP_CLAIM tables.
CO	JHSTREP	History Reporting Produces the Incurred Rolled Off Amounts, Incurred Moved Into Paid Tables, and Paid Rolled Off Amounts reports, and updates the SOP_REP table.
CO	JBLDREP7	Build Reports Produces the Inpatient Case Data Quality Indicator and Statistics report.
CO	JCMPFCT	Completion Factors Computes completion factors and updates the WRK_C_FCTR table. Updates the ANALYSIS_START_DT and ANALYSIS_END_DT fields on the WRK_DB_DEF table.
CO	JSOPMRG	Merge SOP Files Merges four Source of Payment file from JEDIT1-4.
CO	JSOPREP	Source Of Payment Produces the Source of Payment Paid Basis and Source of Payment Incurred Basis reports.
CO	JSVWCNT	View Counts Counts the row in each of the security views.
CO	JSVWCHK	View Check Verifies the completion of the security views count task.
CO	JCLEANUP	Cleanup Clears records from the work tables and files.

CU – Custom Job CO – Core Job

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Type	Job Name	Job Description
CU	HMUU7900-10	PDS/Report Backup Backs up the Production PDS and Production Reports.
CU	HMND7700	Unload Drug Table Unloads Drug table for Briefing Book.
CU	HMND7710	Extracts BB Drug Extracts the Briefing Book Drug file.
CU	HMNC7745	Extracts BB IP Claims Extracts the Briefing Book IPCLAIM file from the IPLOAD file.
CU	HMNC7755	Extracts BB OP Claims Extracts the Briefing Book OPCLAIM file from the OPLOAD file.
CU	HMNA7705	Merge BB Files Merge Briefing Book extracted files.
CU	HMNA7710	Load BB File Loads the Briefing Book table.
CU	JBLDBBDT	Build BB Dates Build Briefing Book dates.
CU	JBLDBBK1-2	Build BB Summary Table Builds the Briefing Book Summary tables.
CO	JHECOLI	Eligibility Collapse Eligibility collapse for PMW.
CU	TBLOADEC	Load Eligibility Collapse Loads the Eligibility collapse table.
CO	JHELIGEX	Eligibility Extract The DQVALID step validates installation of the SAS access interface to DB2 product. The PELIGEX step creates a Eligibility view from CONV_POP table, and runs the SAS program to create 7 extract files from the DB2 tables.
CU	COPYPMW	Copy PMW Files Copies five files from Eligibility.

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CO	JHDRUGVW	Drug View Unload Creates view of Drug table, unloads view for drug detail extract.
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CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CO	JHDRUGEX	Drug Extract Reads unload from the Drug file using this data. The Drug detail extract file created for PMW.
CO	JHCLMVW1-8	Claim View Unload Creates view of OP_CLAIMS1-8 table, and unloads V_CLAIMSVW_1
CO	JHCLMEXT	Claims Extract Sorts the OP_CLAIM file, Reads the sorted file, Manipulates the data and writes out the file to be passed to PMW.

CU – Custom Job CO – Core Job

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Attachment 3. Overview of the Update Process

Type	Job Name	Job Description
CU	HMDF1700	Enrollment Conversion Converts Manage Care Enrollment raw data to the format used by the DataScan System Database.
CU	HMDF1710	Enrollment Folog Report Produces the Failed Operations Log report from failure encountered during the conversion process of the raw data.
CU	HMDF1720	Financial Conversion Converts Manage Care Financial raw data to the format used by the DataScan System Database.
CU	HMDF1730	Financial Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMDF1740	Member Month Conversion Converts Manage Care Member Months raw data to the format used by the DataScan System Database.
CU	HMDF1750	Member Month Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	TBLOADWK	Manage Care Work Table Load Loads the Manage Care Work table.
CU	HMDM1700	Capitation Conversion Converts Capitation raw data to the format used by DataScan System Database.
CU	HMDM1710	Capitation Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.

CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CU	HMPM4710	Capitation PV Extract Extracts the Capitation file for Panorama View.

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CU	TBLDCAWK	Capitation Work Table Load Loads the Capitation Work table.
CU	HMDV0700	PMF GeoCode Converts the Provider PMF raw data for GeoCode.
CU	HMDV0710	MCP GeoCode Converts the Provider MCP raw data for GeoCode.
CU	HMDV1300	Monthly Provider Conversion Converts the Provider GeoCode data to the format used by DataScan System Database.
CU	HMDC1710	Provider Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the GeoCoding data.
CU	TBLOADPW	Provider Work Table Load Loads the Provider data to Provider Work table.
CU	TBLOADBP	Provider Background Load Load the Provider Background table.
CU	HMDE0300	Eligibility Splitter Splits the 30-month Eligibility input into five files sorted by start-date.
CU	HMDE0310-313	Eligibility GeoCode GeoCodes Eligibility raw data file prior to the conversion process.
CU	HMDE1300	Eligibility Conversion Converts the Eligibility GeoCode data to the format used by DataScan Database.
CU	HMDE1310	Eligibility Partitioning Splits Eligibility data into several partitioning files to prepare for partitioning.
CU	HMDE1320	Eligibility Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.

CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CU	HMPE4300	Eligibility PV Extract

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		Extracts the Eligibility file for Panorama View.
CU	TBLDELP1	Eligibility Partitioning Load Load the ELIG_PART file to the ELIG_PART table in the Build process.
CU	TBLDELG1-4	Eligibility Load Loads the Eligibility table for the Update process.
CU	HMDA1700	Splitter Separate the F35 file into Drug and Claims.
CU	HMDC1700-30	Claims Conversion Converts Claims raw data to the format used by the DataScan System Database.
CU	HMDC1740-50	Drug Conversion Converts Drug raw data to the format used by the DataScan System Database.
CU	HMDC1760-70	Claims Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMDC1780	Claims Folog Report Prints the Failed Operations Log report to the printer.
CU	HMDC1790-1800	Drug Folog Report Produces the Failed Operations Log report from failures encountered during the conversion process of the raw data.
CU	HMDC1810	Drug Folog Report Prints Failed Operation Log report to the printer.
CU	HMPD4720	Drug PV Extract Extracts the Drug file for Panorama View.
CU	JCRTGDG-2	Build GDG's Creates empty generation dataset groups that will be used throughout the update process.

CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CO	JDBDEF	Copy DB_Def

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		Copies the DB_Def table to the WRK_DB_DEF table, allocates an EMP_ID/MEMBER_NBR driver file for JBUILD1-4, and allocates empty versions of all generation data group (GDG) files required by the batch process.
CO	JEDIT	Claims Edit Sorts the converted Claims file by clustering index assigns core fields, and edits claims.
CU	HMPC4720	Caseable PV Extract Extracts the Panorama View Caseable data.
CU	HMPC4730	Non Caseable PV Extract Extracts the Panorama View Non Caseable data.
CO	JDQIREP	DQI Report Generates the Data Quality Indicators Report.
CO	JSPLNEW	Split New Inpatient Sorts the NEWCLAIM file, which contains new claims, by EMP_ID/MEMBER_NBR. It splits this file into four sorted NEWCLAIM files.
CU	JENROLO	Unload Eligibility Unloads Eligibility table based on APPL_IND for JENROL1 job.
CO	JENROL1	POP's Build Sorts the Converted Population file by clustering index and edits the data into a loadable file.
CO	JLDWKPOP	Work POP's Load Loads converted Populations to the WORK_POP table.
CO	JBUILD1-4	Build Inpatient Table Build cases from inpatient claims.
CO	JCASEUP1-4	Case Update Update the IP_CASE table.
CO	JINSCLM1-4	Insert Claims Insert claims from the OPCLAIMn file to the appropriate OP_CLAIM tables.
CO	JCLMUPD1-4	Claims Update Update the IP_CLAIM and IP_CLAIM1-4 table.

CU – Custom Job CO – Core Job

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Type	Job Name	Job Description
CO	JLDCSE2U	Case 2 Table Update Update the CASE2 table.
CO	JDELDRV	Delete IP/OP Claims Table Selects records to be deleted from IP_CLAIM table.
CU	HMDRG01U	Insert Drug Sorts the converted Drug files, inserts them into the Drug table and makes a image copy backup of the Drug table.
CU	HMPB4710	Casedays PV Extract Extracts the Panorama View Case data.
CO	JCLMDL01-4	Delete OP Claim Table Deletes claim records from the OP_CLAIM tables.
CO	JLDCLMO1-4	Load OP Claim Table Load additional claim records into the OP_CLAIM tables.
CO	JCLMDLIP	Delete IP Claim Table Deletes claim records from the IP_CLAIM table
CO	JLDCLMIP	Load IP Claim Table Load additional claim records into the IP_CLAIM tables.
CO	JICOP1	Image Copy Outpatient Make an image copy backup of the OP_CLAIM table.
CO	JICIP	Image Copy Inpatient Make an image copy backup of the IP_CLAIM table.
CO	JBLDREP1-2	Build Reports Gathers statistics from the IP_CASE and IP_CLAIM tables to compute completion factors and generate the Inpatient Data Quality Indicators and Case Statistics reports.
CO	JUPPAT1-4	Update Inpatient Create four index files which identify the OP_CLAIM and tables on which claims for a particular patient are located.
CO	JEPSDRV	Episodes Driver Creates four driver files that contain EMP_ID/MEMBER_NBRs and flags to indicate on which OP_CLAIM table these can be found. These files will be used by JEPSBLD1-4 jobstreams to build episodes.

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CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CO	JEPSBLD1-4	Episodes Build Build episodes and generate the History Rolloff, DQ and Archived Episodes report files that will be used later in the update process to generate those reports.
CO	JEPSRPTR	Episodes Reporter Produces the Episodes Data Quality Indicator Report.
CO	JDRUGUPD	Drug/Episodes Update Updates Drug table with EPISODE_IDs
CO	JBLDREP7	Build Reports Produces the Inpatient Case Data Quality Indicator and Statistics report.
CO	JCMPFCT	Completion Factors Computes completion factors and updates the WRK_C_FCTR table. Updates the ANALYSIS_START_DT and ANALYSIS_END_DT fields on the WRK_DB_DEF table.
CO	JSOPREP	Source Of Payment Produces the Source of Payment Paid Basis and Source of Payment Incurred Basis reports.
CO	JICCASH	Image Copy Cases Makes an image copy backup of the IP_CASE.
CO	JHSTOPPD	Outpatient History Rolloff Unloads from the OP_CLM_PD table all rows that should not be rolled off, then rolls claims off the OP_CLM_PD table.
CO	JCSEPUP	Case Update Updates the EPISDOE_ID field on the IP_CASE AND IP_CASE table when episodes are enable.
CO	JEPSLDU	Load Episodes Appends information from the file created in the JEPSBLD1-4 jobs to the EPIS_LINK tables.
CO	JEPSUPD	Update Episodes Updates and rolls records off the EPIS table.
CO	JHSTIPPD	Inpatient Paid History Rolloff Rolls claims off the IP_CLM_PD table.

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CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CO	JHSTI1	Inpatient History Rolloff Rolls cases and claims off the IP_CASE and IP_CLAIM tables.
CO	JLDHDSVC	Load HEDIS Table Loads the HEDIS_SVC table.
CO	JHSTREP	History Reporting Produces the Incurred Rolled Off Amounts, Incurred Moved Into Paid Tables, and Paid Rolled Off Amounts reports, and updates the SOP_REP table.
CO	JULOPPD	Unload OP Paid Unloads from the OP_CLM_PD tables, all rows which should be retained at the end of the batch run.
CO	JULOPPD1-4	Unload OP Claim Unloads from OP_CLM_PD tables all rows which should be retained at the end of the batch run.
CO	JLDOPPD	Load OP Paid Table Sorts and merges the four WRKOPPDn files from JHOST01-4 and loads them on the OP_CLM_PD table.
CU	TBLOADP	Provider Table Load Load the Provider data to Provider Directory table.
CU	TBLCAPU	Load Capitation Table Loads the Capitation table.
CU	TBLDMCPU	Load Manage Care Table Loads the Manage Care Table.
CU	HMDC6310	Drug History Rolloff Identifies the Drug rows to have the APPL-IND changed from N to Y and also those to roll off. Reads the pre-file and does the physical modification and delete.
CU	HMDE1330	Unload Eligibility Pat Table Unloads the ELIGPART table.

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CU	TBLDELP2	Eligibility Partition Loads the ELIG_PART file to the ELIG_PART table in the build process.
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CU – Custom Job CO – Core Job

Type	Job Name	Job Description
CU	HMDE6300	DHS Delete Core Deletes DHS data in the DB2 table from the DHS driver file created in job HMDE1300 in the update process.
CU	HMDE5300	DHS Insert Core Deletes DHS data in the DB2 table from the DHS driver file created in job HMDE1300 in the update process
CU	HMDC6300	Drug Reports Produces financial reports for rolled off drug rows.
CU	JBKDHS	Backup DHS Core Creates backup of the vital.
CO	JSVWCNT	View Counts Counts the row in each of the security views.
CO	JSVWCHK	View Check Verifies the completion of the security views count task.
CO	JCLEANUP	Cleanup Clears records from the work tables and files.
CU	HMUU7900-10	PDS/Report Backup Backs up the Production PDS and Production Reports.

CU – Custom Job CO – Core Job

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1. My Eureka! Knowledge Base Reload and Modification

1.1 Overview

MyEureka!, a third-party reporting tool, supplements DataScan custom report capabilities and provides trained end-users with the capability to design queries and reports from the detailed DB2 tables in the MIS/DSS data warehouse. MyEureka! generates queries using a graphical user interface and formats the resulting information using various combinations of text, tabular reports, graphs and charts. MyEureka! utilizes data in the DB2 relational database tables.

In order to present the information contained in the DB2 tables in a more user-friendly way, a file, called MyEureka! MetaData, is customized to include folders and fields that represent the DB2 tables and fields. The MetaData file is customized using the MetaData Manager, a function within the administrator version of MyEureka!

This document was created to describe the process by which the MyEureka! MetaData File will be maintained.

1.2 Purpose

The purpose of this document is to outline the steps for updating the MyEureka! MetaData file, which will occur as fields are added, deleted or changed in the DataScan database.

1.3 Scope

This document will be used by any project team member responsible for maintaining the MyEureka! MetaData file.

1.4 Responsibility and Enforcement

The MIS/DSS project team is responsible for enforcement of this document.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

The skills required to perform this process include strong familiarity in the following areas:

- DataScan
- MyEureka!
- MapInfo

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- Basic mainframe subsystem navigation
- SQL
- Basic DB2 field and table structure

1.7 Entry Criteria

This process is entered any time the MyEureka! MetaData file is to be modified.

1.8 Procedure Steps

The following are the steps to be taken in order to update the MetaData file:

1. To refresh and reload the MetaData file, the administrator of this process first opens the MyEureka! MetaData Manager program.
2. The MetaData files are located the the W:\CA_MED\ANALYSIS\MYEUREKA! subdirectory. Each MetaData file, all of which have an .iqk extension, is located in the folder associated with the database phase and updated in which it was implemented. The most recent MetaData file is located in the folder with the most recent update. Note that each update will not require a modification to the MetaData, as each update will not have changes to DataScan fields.
3. For fields that are modified, delete them from the appropriate folders so that their properties may be refreshed.
4. New or modified table and column definitions from the DB2 tables are imported as follows:
 - Right click on the "Medi-Cal" Business View and select "Modify".
 - Under the "Load Parameters" option, select the appropriate Qualifier (e.g., HWDCHMPD) and User (e.g., HDHMSP2) for associated with the current DataScan tables. Also, select "Views" from the "Table Types" option.
 - Click on "Reload", and log into the appropriate DataScan database using RUMBA.
 - Select and import the Views that have been created or modified.
5. Length of new or modified summable fields must be expanded to avoid truncation.
6. Format of new or modified summable fields must include commas and dollar signs as appropriate.
7. New or modified custom fields, such as record counts and unique counts, must be programmed for each new folder following the template for other folders.
8. New or modified fields must be hidden if they are hidden in DataScan.
9. Links to descriptions for new fields with valid values in DataScan must be created as follows:
 - Lookup views for new fields with valid values in DataScan must be created in DB2 by the DBA in order to reference COL_LOOKUP table descriptions. Each new view is called V_LOOKUP_[PC FIELD NAME] and selects the valid values and descriptions from COL_LOOKUP for the field with the applicable PC FIELD NAME. The field for valid values is converted using a DB2 scalar function to set the lookup in a format congruent with the corresponding DataScan field.

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- Select the "Hide" option for the new view from the folder properties.
- Copy and rename the "Description" field of the new V_LOOKUP into the "Descriptions" folder, and rename the field to "[PC FIELD NAME]_DESC".
- Using the "Relationships" section of the MetaData, a join must be created between applicable new fields and their lookup tables or views.

10. Fields that no longer exist must be hidden or deleted.

11. The Metadata file, MEDICAL.IQK, resides on each user's workstation in the C:\MYEUREKA\REPORTADMINISTRATOR subdirectory. The location and name of the file is noted in the Default MetaData File box in the Tools-Preferences-Connection menu in MyEureka! This file is placed onto each users' workstation as part of the roll-out process of the MIS/DSS. Subsequent changes to the Metadata file will be propagated via the ReportServer, using the menu option in the Metadata manager to post the updated .iqk file to the ReportServer.

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1.9 Exit Criteria

This process is a continuous cycle and will not be exited unless the database and applications have been decommissioned.

1.9.1 Exit Exception Criteria

None.

1.9.2 Exit Exception Handling

None.

1.10 Forms and Subject Examples

All MetaData materials are kept under the W:CA_MED\ANALYSIS\MYEUREKA! subdirectory.

1.11 Reference Material

The Configuration Manual includes a description of the MetaData customizations. In addition, the MetaData Manager includes a comprehensive on-line help feature.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
05/05/2000	Robert Joy	Policy/Process Established
3/9/2000	Robert Joy	Reviewed for errors/ommissions
3/9/2000	Robert Joy	Modified .iqk propagation via the ReportServer

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1. Briefing Book Report Addition/Modification/Removal

1.1 Overview

The Briefing Book in Panorama View contains a variety of robust reports that add analytic value to the MIS/DSS system. As Medi-Cal trends change over time, the need to add, change or delete reports may occur. This document describes the process in which such reports are added, changed or deleted from the Briefing Book.

1.2 Purpose

The purpose of this document is to create a documentation standard for the process of adding, changing, or deleting reports in the Briefing Book.

1.3 Scope

This document will be used by any MIS/DSS project team member who will be responsible for adding, changing, or deleting reports in the Briefing Book. The actual generation of any new reports and posting these said reports to the Briefing Book are outside the scope of this document.

1.4 Responsibility and Enforcement

The MIS/DSS Project team is responsible for the enforcement of this document.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

A general overall analytic understanding of the both the capabilities and limitations of the MEDSTAT applications and Medi-Cal database contents is required to determine appropriateness of requests for the creation of new reports.

1.7 Entry Criteria

This process is entered any time a new policy or process needs to be drafted or finalized.

1.8 Procedure Steps

1.8.1 To add a report to the Briefing Book:

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- The end-user completes the Panorama Briefing Book Request Form and submits it to the MEDSTAT Analytic Support Team (address included on form), or the Project Office requests that an IR be opened.
- The MEDSTAT Analytic Support Team creates an IR and notifies the requestor of receipt.
- The MEDSTAT Analytic Support Team forwards the request to the DHS MIS/DSS Project Team with a recommended action.

The DHS MIS/DSS Project team reviews the request and assigns one of the following dispositions:

- Accepted: The report meets the MIS criteria and will be submitted to MEDSTAT for inclusion into the Briefing Book. In addition, the MIS/DSS Team assigns a priority, and returns the request to the MEDSTAT Analytic Team.
- Data Not Available: The report meets the MIS criteria, but the data is not available to adequately answer the stated question(s). This may be a report that may be added at a later date when the information is made available.
- Need More Information: The report may meet the MIS criteria, but the request is returned to the requesting user for additional information.
- Not Accepted: The requested report does not meet the MIS criteria or a different solution may be applicable.
- The MEDSTAT Analytic Team notifies the original requestor of the disposition, updates the IR and, if appropriate, the MEDSTAT Analytic Team requests additional information or clarification.

1.8.2 To change an existing Briefing Book report:

Once reports have been added to the Briefing Book, changes to existing reports may be necessary. The same process to request a report should be used to change a report. Reference the report number on the Panorama Briefing Book Request Form. Certain types of changes may cause additional technical or administrative effort to be expended. These changes may result in a new report being added to the Briefing Book. Potential changes include:

- Format changes (adding, removing or changing the order of columns or graphics)
- Sort sequence changes
- New or modified data source(s)
- Modified data selection criteria
- Modified data aggregation criteria

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1.8.3 To delete an existing Briefing Book report:

As experience is gained in using the Briefing Book, an individual user may determine that a previously defined report is no longer useful. To request a report be removed from the Briefing Book, the Panorama Briefing Book Request Form should be completed and submitted to the MEDSTAT Analytic Support Team (address included on form). Because the report may be used by a variety of people, an overall evaluation of the report's utility and value will be necessary. The DHS MIS/DSS Team will consider the impact on all users when evaluating a request to delete a report. At this point the request would reference the Change Control process.

1.9 Exit Criteria

Approval of IR resolution.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

The Briefing Book Request Form is the required documentation to initiate an add, change, or deletion to Briefing Book Reports.

1.11 Reference Material

The Functional Specification for Panorama View Briefing Book, Phase 5 is the reference material used in creating this process.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
5/2/2000	Tracy Meeker	Policy/Process Established
3/9/2001	Robert Joy	Added new references to use of IR tool
3/9/2001	Robert Joy	Reviewed for errors/ommissions

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1. Stratification Extraction

1.1 Overview

The volume of data included in the Medi-Cal MIS/DSS is extremely large. In order to make and test substantial changes in the conversion programs and jobs that create the warehouse, MEDSTAT has developed a set of programs that stratify (randomly select) input Eligibility and Claim files in order to provide a viable means to sufficiently test the design with a smaller set of data.

1.2 Purpose

This process describes the efforts required to “pull a stratified extract” from production data feeds to develop a representative test base of reasonable size for testing.

1.3 Scope

This process applies to test base testing after phase 4 of the Medi-Cal project. Past experiences with stratification have included efforts to weight samples relative to particular new types of data that were encountered as part of a new project phase. As all types of data are now in the warehouse, this effort has been simplified to become a random selection process of a given percentage (e.g., 2%).

1.4 Responsibility and Enforcement

The Analytic Team and Development team managers are responsible for conveying the usage and makeup of all stratified test to the Department project staff.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

Users of this process must be familiar with programming methods and basic statistical concepts.

1.7 Entry Criteria

This process is entered any time a test database is required with a representative sample.

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1.8 Procedure Steps

MEDSTAT has developed a process that:

1. Selects a random sampling frequency,
2. Applies the factor to the Eligibility records,
3. Extracts all claims from the input data for the identified recipients.

The following three sections describe the method used to accomplish each of these three processes.

1.8.1 Selection of Sample Frequency

MEDSTAT begins the process by analyzing the desired test base size (normally 10-12 million claims) and then performing analysis of recipient identifiers to the number of resultant claims. This analysis compares MEDSTAT's estimates of claims volume per eligible for previous databases against the input volumes of Eligibles. This information provides an approximate number of unduplicated eligibles that would yield the desired test base size. The number of unduplicated eligibles is then compared to the overall number in the input raw data set. A sample frequency factor is then calculated (e.g., to get the proper amount every n^{th} record must be selected). For example, for the Phase 5 test databases, the eligibility file was sorted by CIN, duplicates were removed, and every 50th CIN was selected for the stratification. Then all claims and encounters for those selected CINs were chosen. This resulted in a test database with just under 10 million claim and encounter lines. This factor is then fed to the MEDSTAT developed program MDU100 that selects every n^{th} based upon the input factor. This has created the "CIN List" for the test base.

1.8.2 Application of Sample Frequency Factor To Eligibility

The MEDSTAT developed program MDE004 accepts the values from the CIN List and extracts any and all records for each recipient ID from the input raw data Eligibility file. Once completed this Eligibility file becomes the input file during the installation or update process executed against the test base.

1.8.3 Application of Sample Frequency Factor To Claims

The MEDSTAT developed program MDU060 accepts the values from the CIN List and extracts any and all records for each recipient ID from the input raw data Claim file. Once completed this Claims file becomes the input file during the installation or update process executed against the test base.

1.9 Exit Criteria

This process is exited once files of unique eligibles and respective claims are generated that meet the desired testbase size. Iterations of the process may be required to optimize claim to eligible ratios depending upon the accuracy of inferences that MEDSTAT has postulated based upon ratios seen in previous databases. To date, the accuracy of these ratios has held and MEDSTAT has been able to achieve the desired volume on the first sampling cycle.

1.9.1 Exit Exception Criteria

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By agreement of the Project Director, the format and content of this policy/process may be deviated from standard.

1.9.2 Exit Exception Handling

The exception must be documented and agreed to by the Project Director.

1.10 Forms and Subject Examples

N/A.

1.11 Reference Material

N/A.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/10/00	John Mulcahy	Policy/Process Established

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1. MIS/DSS Server Operating System and Software Installation

1.1 Overview

Some of the MIS/DSS applications use NT servers for their interactive use as well as for the installation/update of their respective databases. In addition, two additional special purpose servers service the project need for batch execution of MyEureka! queries and server back-ups.

1.2 Purpose

This document describes the process necessary to install the server operating system (NT) as well as specific applications used on each server.

1.3 Scope

This document describes the processes affecting the project NT servers only.

1.4 Responsibility and Enforcement

The Tech Support manager is responsible to ensure that this document accurately describes the current Server Software installation described herein.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

An employee configuring/maintaining a project NT server should have strong Network Support skills and be familiar with troubleshooting and resolving Hardware/Software issues on NT platforms. There is an ASSUMPTION that the NT Server Installation is done by someone with prior advanced NT 4.0 Server experience.

1.7 Entry Criteria

This process is entered any time an additional NT server is added, replaced, or maintained on the project.

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1.8 Procedure Steps

1.8.1 Initial Server Installation

This section provides step by step instructions for building a new Windows NT 4.0 Server onto Compaq hardware. Operating System Installation:

Install NT.

1. Create a partition on the boot drive using max (4Gb).
2. Name: (Optional).
3. Per Seat Licensing depending on licenses purchased.
4. Determine if server is PDC, BDC, or Stand Alone Server.
5. Deselect all components that are not essential to operation of Server.
6. Deselect IIS.
7. Video Properties: 800X600, 60 hertz.

1.8.1.1 Operating System Configuration:

1. Install Service Pack.
2. Maximize Throughput for Servers
3. Virtual Memory
 - leave on C:\ or move page* to available drive
4. Disk Administrator
 - Assign D: to CD-ROM then Create partition for needed drive space specific to server function.
5. User Manager for Domains
 - Rename the Administrator account to ADMIN and change the Administrator password to current password in use.
 - Create local accounts as needed for the applications.
6. Event Viewer
 - Modify log files as follows:
 - System - Overwrite Events as Needed
 - Security - Overwrite Events as Needed
 - Application - Overwrite Events as Needed
7. Update IE to 5.0.

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8. Compaq SSD Support Software
 - Run \cpqsupsw\ntssd\setup, Express.
 - Select all suggested options, update.
 - Manually add Compaq Array Configuration Utility and HAL Recovery Option (change path to NT40 Server).
 - In control panel, ensure all options were added.
9. Create Emergency Repair Disk: Run "rdisk /S"

1.9 Exit Criteria

This process is exited after completion of each step listed above in Section 1.8, Procedure Steps.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

N/A

1.11 Reference Material

N/A.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/24/00	John Mulcahy	Policy/Process Established

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1. Server System Software Maintenance

1.1 Overview

Some of the MIS/DSS applications use NT servers for interactive use as well as the installation/update of their respective databases. In addition, two additional special purpose servers service the project need for background execution of MyEureka! queries and server back-ups. These servers require periodic updates to the system software (i.e., FirmWare) that controls the execution of instructions. These updates result from software patch releases provided by the hardware vendor that are specific to a particular server type and model.

1.2 Purpose

This document describes the maintenance activities that are performed to minimize the risk of server downtime and resolve known issues or add enhanced functionality for the server bios.

1.3 Scope

This document describes the processes affecting the project NT servers only.

1.4 Responsibility and Enforcement

The Tech Support manager is responsible for ensuring that this document accurately describes the current Server Hardware configurations and that the maintenance processes described in herein are performed.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

Individuals carrying out this process should have a minimum of 2 years hands-on Network Support experience and similar experience with troubleshooting and resolving Hardware/Software issues on NT platforms. Completion of the MCSE is preferred. There is an ASSUMPTION that the NT Server Installation is done by someone with prior advanced NT 4.0 Server experience.

1.7 Entry Criteria

A quarterly Smart Server subscription CD is distributed by Compaq. This CD contains software patches. Recognition of a BIOS firmware patch on this CD initiates this process.

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1.8 Procedure Steps

1.8.1 Server Installation of Upgrade Software

This section provides step by step instructions for updating BIOS firmware on an existing Windows NT 4.0 Server onto Compaq hardware. Server Software Periodic Maintenance Compaq periodically releases updated Smart Start and Server Management CD's. Each new release contains updates for the ROM BIOS and hardware firmware of the Compaq Servers. Inserting the Smart Start CD into the CD-ROM drive will launch the Diskette Builder applet. The affected servers are determined and Options Rompaq and System Rompaq diskettes are generated from the CD for each system. Quantity of diskettes required will vary depending on the CD release. The following are the steps to install the patch:

1. After the diskettes are created, recycle the server several times to complete the Rompaq updates. It is recommended that a full backup of all data should be residing on the server. Notify users of potential impact to access on servers.
2. Shut down and power back on the server with the System Rompaq diskette in drive A:\. Follow instructions carefully during the update. When complete the user will be instructed to recycle the server power. Insert disk one from the Options Rompaq set. Follow instructions carefully for all diskettes in the set. Each diskette will search the system and determine if the hardware firmware is the current version. If the hardware is not current, an option will be offered to upgrade. A backup of the current firmware will be stored back to the diskette if the upgrade option is chosen. DO NOT, for any reason, shut down the power of the server during a firmware upgrade.
3. When steps 1 and 2 are completed, remove all diskettes and recycle the server. Watch during the reboot for the F10 prompt (system configuration) and press F10. The System Configuration will need to be executed to allow the BIOS to recognize newly upgraded hardware. Reboot server to NT.
4. It may be advisable to return to the Smart Start CD once you have logged into NT. There are NT Software Updates available on the new release CD's. Insert the CD and cancel the Diskette Builder applet when it opens. Launch NT Explorer and browse to the drive for the CD-ROM. On the root of the CD you will find a CPQSUPSW (Compaq Support Software) folder. Within this folder, locate the NTSSD folder for an NT 4.0 Server. Double click Setup.exe to launch the applet, then locate the specific hardware component you want to update and click Install. The "Express" feature will allow the installer to have a list of available components presented for updates. When complete reboot the server.
5. In the event that a hardware failure is suspected, follow these steps:
 - Press F10 at boot up and select the "Hardware Diagnostics" Utility.
 - Select the specific hardware you want to test and which feature to test.
 - Follow on-screen options to setup the number of loops for testing.

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- Have test errors write to A:\ and insert a blank floppy.
- Contact Compaq Tech Support for replacement of parts and further troubleshooting instructions.

1.9 Exit Criteria

The Procedure Steps in section 1.8.1 have been successfully completed.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

N/A

1.11 Reference Material

N/A.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/24/00	John Mulcahy	Policy/Process Established

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: MIS/DSS Workstation Software Installation	
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1. MIS/DSS Workstation Software Installation

1.1 Overview

The Management Information System/Decision Support System (MIS/DSS) deployed at Medi-Cal consists of Graphical User Interface (GUI) and back-end (Database) software that work in concert to provide the user with query results and reports on the data stored in the data warehouse. Depending upon the tasks performed by the user and their individual software needs, there is a given combination of GUI software on the workstation consisting of DataScan, Panorama View, Performance Measurement Workstation, MyEureka!, or MapInfo. In addition, the overall application suite has certain workstation requirements in order to operate at the expected level of performance. This process describes these workstation requirements as well as the installation efforts required to install each of the applications on a desktop workstation.

1.2 Purpose

The purpose of this process is to denote the necessary requisite hardware and software configurations and document the necessary steps for the proper installation of a desktop workstation containing MIS/DSS applications.

1.3 Scope

This process applies specifically to those aspects of the MIS/DSS that involve the desktop workstation.

1.4 Responsibility and Enforcement

The Tech Support manager will be responsible for ensuring that subsequent workstation installations adhere to the process described in this document.

1.5 General Considerations

The installation instructions for each of the application suite programs may change as time goes on depending upon the inclusion of new or modified functionality that is different from the preceding version.

1.6 Skill Requirements

Individuals installing the workstation applications should be aware of the basic functionality of each application as well as with installation processes that utilize the Windows setup shell program. In addition, this individual needs to understand the impact of software on the system configuration files on the PC and be able to make the necessary modifications to allow the application to function properly.

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1.7 Entry Criteria

This process is entered any time a request is received for a new workstation installation or an update to an existing workstation.

1.8 Procedure Steps

1.8.1 Workstation Requirements

To successfully run the MEDSTAT products, the following hardware and software requirements must be met.

CPU:	166 Megahertz Intel Pentium processor or faster
CD ROM:	Recommended, not required
Memory:	64 Megabytes or more
HD:	400 Megabytes of free space available
Monitor:	SVGA or better
Communications:	Network interface card, 3270 Software
Software:	Windows 95, MS Office 97, Internet Explorer 4.0 or higher
Network Protocols:	TCP/IP, DLC 32-bit

1.8.2 Workstation Configuration for Windows 95

1.8.2.1 Network

TCP/IP protocol

This protocol is required for the Panorama and PMW products to connect to the servers.

DLC 32-bit protocol

The protocol is required for MyEureka! and the DataScan products to connect to the Mainframe.

IPX protocol

The frame type needs to be changed from auto to 802.2 to allow Attachmate and PCOMM to establish host sessions at the same time.

SYSTEM.INI

In the [386Enh] section of the SYSTEM.INI file, 'device=v802d.386' and 'device=vsdlcd.386' needs to be added. This change is required for DataScan to work correctly. The SYSTEM.INI file can be found in the c:\windows\system folder. Only update the SYSTEM.INI file after Attachmate has been installed.

Display settings

The color palette needs to be set to High Color (16 bit), the screen resolution set to 800 X 600 pixels, and the default font size set to small. These settings are needed for Panorama to work correctly.

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1.8.2.2 Product installation

These procedures are broken down by user type with instructions for installing products for the MIS, DSS, IQ, PMW, and MAP user.

User Type Key

MIS

Panorama

DSS

Attachmate (or equivalent)
DataScan

IQ

Rumba (or equivalent)
MyEureka!

PMW

ISQL/w
PMW

Map

MapInfo

1.8.2.3 MIS installs

Install Panorama (V1.2)

- Go to the Panorama installation folder and execute the *setup.exe*. This will begin the installation of Panorama.
- On the **Panorama Setup** screen, click “**NEXT**”.
- On the **Choose Destination Location** screen, verify the destination folder is set to **C:\MEDSTAT\PANORAMA** and Click “**NEXT**”.
- Click “**NEXT**” again. The install shield will now start the installation of Panorama.
- When prompted “*Do you wish the Panorama icon to be placed on the desktop?*” Click “**NO**”.
- Next you will receive a dialog box with the message “*Registering Shared Components*”.
- Now **DAO** setup will execute.
- When you get the **Setup Complete** screen, select “**RESTART MY COMPUTER NOW**” and Click “**FINISH**”.
- After the system has finished rebooting, create a new folder on the desktop and name it “**The MEDSTAT Suite**”.
- Go to the **Windows Explorer** and go to the **C:\WINDOWS\START MENU\PROGRAMS\MEDSTAT** folder.
- Create a new folder and name it **Panorama**.
- Move the **Panorama shortcut** to the new Panorama folder.
- Copy the **Panorama shortcut** to “**The MEDSTAT Suite**” folder on the desktop.

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1.8.2.4 MIS Configuration

The lone configuration issue with Panorama is to indicate which server the **PANORAMA.INI** file is pointing to. To check or change the server:

- **Edit c:\medstat\panorama\panorama.ini**
- Go to the section labeled “**Remote**”
- Verify that the **ServerID** is set to **158.96.30.4** for production.

1.8.2.5 DSS and IQ installs


Install Attachmate (V4.3A)

- Go to the **Attachmate Extra** installation folder and execute the **SETUP.EXE** file.
- Click ‘**NEXT**’ on the **Extra! for Windows** setup screen.
- Click ‘**ACCEPT**’ on the software license information screen.
- Enter the name and company and click ‘**NEXT**’ on the user information screen.
- Select ‘**LOCAL**’ and click ‘**NEXT**’ on the setup mode screen.
- Verify the program directory (**C:\EXTRAWIN**) and click ‘**NEXT**’ on the change directory screen.
- Verify the user directory (**C:\EXTRAWIN\USER**) and click ‘**NEXT**’ on the change user directory screen.
- Select ‘**Custom**’ and click ‘**NEXT**’ on the setup type screen.
- Verify that **Extra! for Windows** and **APPC Client** are checked and click ‘**NEXT**’ on the **Select Component** screen.
- Click ‘**NEXT**’ on the **Select Program Group** screen.
- Select ‘**YES**’ to add the **Extra! Directory** to your path and click ‘**NEXT**’ on the **Update Path** screen.
- Select ‘**YES**’ to add the **APPC Client** directory to your path and click ‘**NEXT**’ on the **Update Path** for the **APPC Client** screen.
- Click ‘**NEXT**’ on the **Start Copying Files** screen.
- Click ‘**EXIT Setup**’ on the **Configure Extra** screen.
- Select ‘**REBOOT SYSTEM**’ and click ‘**FINISH**’ on the **Exit Setup** screen.
- After the system has rebooted. Go to **C:\windows\start menu\programs**.
- Create a folder labeled **Utilities** if it does not exist.
- Drag and drop the folder ‘**EXTRA! for Windows**’ into the **Utilities** folder

1.8.2.5.1 Configure Attachmate

- Go to the **Utilities** folder under **W:\Apps\Medstat\Utilities** and open the **DSCAN4** folder.
- Open the **DSCANFIX** folder.
- Execute the **DS_FIX.BAT** file.
- Go to the **Utilities** folder under **W:\Ca_med\Techsupp\The Medstat Suite** and open the **Extra!** folder
- Execute the **CONFIG.BAT** file.
- Click on **Start**

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- Select **Programs**
- Select **Utilities**
- Select **Extra! for Windows**
- Click **Node Operator Facility**
- Click on

- Highlight '**LAN Attached (802.2)**' and click on '**Configure**'
- Set **Destination Address** to **400005DCD31D**
- Click on '**SNA**'
- Enter the **LU Address** in the **Control Point Name** field
- Click '**OK**'
- Click '**OK**'
- Click '**YES**' to save changes
- Click '**SELECT**'
- Click on '**APPC**'
- Select **LU**
- Double click on '**Local LU**'
- Update the **LU Alias and Description** to reflect the correct **LU Address**
- Click '**OK**'
- Close the **Configure APPC LU Pairs** screen
- Click '**YES**' to save current configuration changes
- Close **Node Operator Facility**
- Edit **SYSTEM.INI** file and add '**Device=v802d.386**' and '**Device=vsdlcd.386**' to the **[386Enh]** section.
- Reboot PC
- Click on **Start**
- Select **Programs**
- Select **Utilities**
- Select **Extra! for Windows**
- Click **Extra! Configurator**
- Click on **Open Session**
- Verify the connection with **HWDC** and close the session
- Close **Extra! Configurator**

1.8.2.6 Install DataScan (V4.01M)

- Go to the **DataScan Installation** folder and execute the **SETUP.EXE** file.
- Verify that **all options are checked** and click '**OK**' on the **DataScan Configuration Options** screen.
- Verify that the **Database Name** is set to '**MEDSTAT**' and click '**OK**'.
- Verify that the **Database Title** is set to '**DATASCAN SYSTEM**' and click '**OK**'.

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- Verify that the **Program Title** is set to '**DATASCAN**' and click '**OK**'.
- Set the **Program Group** to '**DATASCAN**' and click '**OK**'.
- Set the **desired location** for DataScan to '**C:\MEDSTAT\DSKANxxx**' (where xxx = the version)' and click '**OK**'.
- Verify that the configuration is correct and click '**YES**'.
- DataScan will now be installed.
- Click '**NO**' when prompted to **view the readme file**.
- Go to **C:\Windows\Start Menu\Programs**.
- Create a folder labeled **Utilities** if it does not exist.
- Create a folder labeled **Medstat** if it does not exist.
- Copy the folder '**DATASCAN**' into the **Utilities** folder.
- Delete the **DATASCAN shortcut** from **C:\Windows\Start Menu\Programs\Utilities\Datascan** folder.
- Drag and drop the **DATASCAN** folder into the **Medstat** folder.
- Delete the **DataScan Config** shortcut from **C:\Windows\Start Menu\Programs\Medstat\Datascan** folder.
- Create a folder on the **Desktop** labeled '**The MEDSTAT Suite**' if it does not exist.
- Copy the **DataScan** shortcut into **The MEDSTAT Suite** folder on the desktop.

1.8.2.6.1 Configuring DataScan

Go to **START, PROGRAMS, UTILITIES, DATASCAN, DATASCAN CONFIG. V4.20**.

- Double Click on "**Default Datascan Configuration**".
- Change the "**Description**" to "**DHS Production Database**". All other sections are correct.
- Select "**Update**", Exit out.

1.8.2.7 Install Rumba (V5.2C)

- Go to the **Rumba 5_2** folder under **W:\Ca_med\Techsupp\The Medstat Suite** and execute the **SETUP.EXE** file.
- Click '**INSTALL**' for **Rumba 95/NT** on the welcome screen.
- When prompted enter the **Product Serial Number** and **Product Key** and click '**NEXT**'.
 - **Product serial number** = PAC 00045361
 - **Product key** = VGCDSDRDF 96
- Click '**ACCEPT**' on the **Software License Agreement** screen.
- Enter the **Name (MISDSS)** and **Company (CA DPT of HEALTH SVCS)** and click '**NEXT**' on the **User Information** screen.
- Select **Custom** and click '**NEXT**' on the **Select the Setup Option** screen.
- Next you will need to select which options you would like to have installed.
 - Click '**REMOVE**'

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- Click the **plus sign** next to the **Arpeggio Data Access** in the options list.
- Highlight '**Rumba ODBC Driver**' and click '**ADD**'.
- Scroll down through the list and click the **plus sign** next to **APPC Client**.
- Click the **plus sign** next to **Mainframe Interface**.
- High light '**802.2 DLC**' and Click '**ADD**'.
- Click '**NEXT**'.
- Click '**YES**' on the **Setup Dialog** box.
- Click '**NEXT**' on the **Select Private Directories** screen.
- The install shield will now install the options you selected.
- Click '**NO**' on the **Wall Data Registration** screen.
- Click '**YES**' on the **Wall Data Registration Confirmation** screen.
- Click '**NO**' on the **Question** screen.
- Select '**Yes, I want to restart my computer now**' and click '**OK**' on the **Restart Windows** screen.
- After the system reboots. Go to **C:\Windows\Start Menu\Programs**
- Create a folder labeled **Utilities** if it does not exist.
- Drag and drop the **Rumba 95 NT** folder into the **Utilities** folder.

1.8.2.7.1 Configuring Rumba

- Go to the **Utilities** folder under **W:\Ca_med\Techsupp\The Medstat Suite** and open the **Arpeggio** folder
- Open the **Arpegfix** folder.
- Execute the **Arpegfix.bat** file. (This will copy over the Rumba configuration file).
- Click on '**FILE**' and then '**EXIT**'
- Close the **Arpegfix Execution** screen
- Click on **Start**
- Select **Programs**
- Select **Utilities**
- Select **Rumba 95 NT Folder**
- Select **Rumba Administrative Tools**
- Click on **APPC Configuration**
- Click on '**FILE**' from the **Rumba APPC Configuration** screen.
- Click '**OPEN**'.
- Double click on '**HWDC.CFG**'.
- Double click on **Connections**
- Set the following options:
 - **Link Name:** **HWDC**
 - **Block ID:** **05D**
 - **Node ID:** **A00xx (xx = last 2 digits of the LU address)**
 - **Destination Address:** **400005DCD31D**
 - **Remote SAP Address:** **04**
 - **Local SAP Address:** **08**

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- Set the **Link Options** to **Mainframe**
- Click on the **Advanced Tab**
- Uncheck **Auto Start Link**
- Check **Auto Disconnect Link**
- Click **'OK'**.
- Enter the **LU Address** in the **Control Point Name**
- Double click on the **Local LU's**.
- Enter the **LU Alias** (same as the **Control Point Name**)
- Enter the **LU Name** (same as the **Control Point Name**)
- Click **'OK'**
- Double click on **Side Info Value DBHMTD**
- Click on arrow next to **Local LU Value** and select **LU** from list
- Click **'OK'**
- Double click on **Side Info Value DBHMPD**
- Click on arrow next to **Local LU Value** and select **LU** from list
- Click **'OK'**
- Close panel
- Click **'YES'** to save changes

1.8.2.7.2 Configure ODBC32

- Double click on **My Computer**
- Double click on **Control Panel**
- Double click on **32bit ODBC**
- Click on **System DSN** tab
- Click **'ADD'**
- Select **'RUMBA DRDA-32'** and click **'FINISH'**
- Click **'OPTIONS'**
- Set **Catalog Owner** to **'SYSIBM'** and click **'OK'**
- Set **Data Source** to **'DBHMPD'**
- Set **RDB Name** to **'HWDCHMPD'**
- Set **Default Owner** to **'HDHMSP'**
- Click **'COMMUNICATIONS>>'**
- Set **Mode Name** to **'IBMRDB'**
- Set **Remote LU** to **'DBHMPD'**
- Click **'OK'**
- Click **'ADD'**
- Select **'RUMBA DRDA-32'** and click **'FINISH'**
- Click **'OPTIONS'**
- Set **Catalog Owner** to **'SYSIBM'** and click **'OK'**
- Set **Data Source** to **'DBHMTD'**
- Set **RDB Name** to **'HWDCHMTD'**
- Set **Default Owner** to **'HDHMSP'**

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- Click '**COMMUNICATIONS>>**'
- Set **Mode Name** to '**IBMRDB**'
- Set **Remote LU** to '**DBHMDT**'
- Click '**OK**'
- Click '**OK**'
- Close Control Panel

1.8.2.8 Install MyEureka! (V6.1.300)

- Go to the **MyEureka!** Folder under **W:\Apps\MyEureka\v6.13** and execute the **LAUNCH.EXE** file.
- Click on '**INSTALL REPORT DESIGNER**'.
- Click '**NEXT**' on the **Welcome** screen.
- Enter the **Product Key** and click '**OK**' on the **Activation Key** screen.
 - **Product key = 0x8b40-bb22-84bc-d2b5-c417-b45b-0778**
- Verify that **Typical Installation** is selected and click '**NEXT**' on the **Setup Type** screen.
- Click '**YES**' on the **Confirm New Folder** screen.
- Click '**NEXT**' on the **ODBC Drivers** screen.
- Click '**NEXT**' on the **Program Folder** screen.
- Click '**INSTALL**' on the **Confirm Selection** screen.
- The install shield will now install MyEureka!
- Select '**Yes, I want to restart my computer now**' and click '**FINISH**' on the **Setup Complete** screen.
- After the system reboots. Go to the **C:\Windows\Start Menu\Programs** folder.
- Create a folder labeled **Medstat**.
- Open the folder labeled **Medstat**.
- Create a folder labeled **MyEureka!**.
- Copy into the **MyEureka!** folder the **Report Designer Shortcut** from **C:\Windows\Start Menu\Programs\MyEureka! Report Designer** folder.
- Rename the **Report Designer Shortcut** to **MyEureka!**
- Create a folder on the **desktop** and name it '**The MEDSTAT Suite**' if it does not exist.
- Copy the **MyEureka! Shortcut** into **The MEDSTAT Suite** folder on the desktop.

1.8.2.8.1 Install ISQL/w (V6.5)

- Go to the **SQL Installation** folder under **W:\Apps\SQLServer65** and execute the **SETUP.EXE** file.
- Click '**CONTINUE**' on the **Welcome** screen.
- Verify **Install Client Utilities** is selected and click '**CONTINUE**' on the **Install/Remove Client Utilities** screen.
- Verify that **all utilities** are selected to be installed.

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- Verify the **Drive** and **Install Directory** and click '**CONTINUE**' on the **Install Client Utilities** screen.
- Verify installation on hard disk and click '**CONTINUE**' on the **SQL Server Books Online** screen.
 - Click on '**REBOOT**' on the **Microsoft SQL Server 6.5 Complete** screen.
- After the system reboots. Go to **C:\Windows\Start Menu\Programs**.
- Create a folder labeled **Utilities** if it does not exist.
- Drag and drop the folder labeled **Microsoft SQL Server 6.5 Utilities** into the **Utilities** folder.

1.8.2.8.2 Configure SQL

- Click **Start**.
- Select **Programs**.
- Select **Utilities**.
- Select **Microsoft SQL Server 6.5 Utilities**.
- Click on **SQL Client Configuration Utility**.
- Click on the **Net Library** tab.
- Set **Default Network** to '**TCP/IP Sockets**'.
- Click on the **Advanced** tab.
- Under **Client Configuration**.
- Set **Server** to '**PMW**'.
- Set **DLL Name** to '**TCP/IP Sockets**'.
- Set **Connection String** to '**158.96.30.5**'.
- Click on '**Add/Modify**'.
- Click '**DONE**'.

1.8.2.9 Install PMW (V1.2 1999)

- Go to the **PMW** folder under **W:\Apps\PMW1999_v1.2** and execute the **Setup.exe** file.
- Click '**NEXT**' on the **Welcome** screen.
- Click '**NEXT**' on the **Select Components** screen.
- Change the **Program** folder to **PMW**, and click '**NEXT**' on the **Select Program Folder** screen.
- Click '**NEXT**' on the **Confirm Installation Settings** screen.
- The install shield will now install PMW.
- Uncheck '**Yes, I want to view the PMW readme file**', '**Yes, I want to launch the PMW client program**', and click '**FINISH**'.
- Go to the **C:\Windows\Start Menu\Programs** folder.
- Create a folder labeled **MEDSTAT** if it does not exist.
- Drag and drop the **PMW** folder into the **MEDSTAT** folder.
- Create a folder labeled **The MEDSTAT Suite** on the desktop if it does not exist.

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- Copy the **PMW Shortcut** from **C:\Windows\Start Menu\Programs\Medstat\PMW** into the **MEDSTAT Suite** folder on the desktop.

1.8.2.9.1 Configure PMW

- Launch **PMW**.
- Set **Server** to '**PMW**'.
- Set **Database** to '**PMW**'.

1.8.2.10 Map Install

1.8.2.10.1 Install MapInfo (V4.12)

- Go to the **MapInfo** folder under **W:\Ca_med\Techsupp\The Medstat Suite\Mapinfo** and execute the **SETUP.EXE** file.
- Enter **Name**, **Organization**, and **Serial Number** and click '**NEXT**' on the registration information screen.
 - **Serial number = W412838727**
- Verify **Standalone Workstations** and **Standard Installation** and click '**NEXT**' on the **Mapinfo 4.1 Setup** screen.
- Verify **Installation Directory** and click '**FINISH**' on the **Standard Installation** screen.

1.8.2.10.2 Map Configuration

- Go to the **Utilities** folder under **W:\Apps\Medstat** and open the **MapInfo** folder.
- Copy the **California** folder into the **C:\Mapinfo\Data** folder.

1.8.3 Workstation Configuration for NT

1.8.3.1 Network

TCP/IP protocol

This protocol is required for the Panorama and PMW products to connect to the servers.

1.8.3.2 DLC 32-bit protocol

The protocol is required for MyEureka! and DataScan products to connect to the Mainframe.

1.8.3.3 IPX protocol

The frame type needs to be changed from auto to 802.2 to allow PCOMM to establish host sessions at the same time.

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1.8.3.4 Display settings

The color palette needs to be set to High Color (16 bit), the screen resolution set to 800 X 600 pixels, and the default font size set to small. These settings are needed for Panorama to work correctly.

1.8.3.5 Product installation

These procedures are broken down by user type with instructions for installing products for the MIS, DSS, IQ, PMW, and MAP user.

1.8.3.6 User Type Key

MIS

- Panorama

DSS

- Attachmate
- DataScan

IQ

- Rumba
- MyEureka!

PMW

- MSSQL 7.0 Client
- PMW 2000

Map

- MapInfo

1.8.3.7 MIS installs (Install All Applications then Run the Batch File)

1.8.3.7.1 Install Panorama (V1.2)

- Go to Rollout CD **Panorama20\Client\Install** and execute the **Setup.exe**.
- On the **Panorama Setup** screen, click “**NEXT**”.
- On the **Choose Destination Location** screen, verify the destination folder is set to **C:\MEDSTAT\PANORAMA** and Click “**NEXT**”.
- Click “**NEXT**” again. The install shield will now start the installation of Panorama.
- When prompted “*Do you wish the Panorama icon to be placed on the desktop?*” Click “**NO**” this icon will be placed for you when you run the batch file into “**The MEDSTAT Suite**” folder on the desktop.
- Next you will receive a dialog box with the message “*Registering Shared Components*”.

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- Now **DAO** setup will execute.
- When you get the **Setup Complete** screen, select “**RESTART MY COMPUTER NOW**” and Click “**FINISH**”.
- After the system has finished rebooting continue with installation of all other applications.

1.8.3.8 MIS Configuration

1.8.3.8.1 Panorama Configuration

- When all applications are completely installed run the batch file before testing the applications. The configuration files will be copied for you.
- **Launch PV and test for connection then make sure you can get data pull from the server.**
- **Check the following:**
 1. Click on Beneficiary View
 2. Click on Expenditures folder
 3. Click on the first question
 4. Make sure a graph comes up
 5. Database window (i.e. data on bottom of graph): May 1998 – June 2000 (5.3 database)
 6. If the screen does not show a complete view of the graph, Click on *Control Panel* and make sure that User Settings are 800x600 Pixels for screen resolution.
 7. Click on *Time Period (clock icon)*, Choose *Yearly*, and OK. Then, *Double Click on the most recent fiscal year graph*. Then, *click and drag* a dimension onto the report. Ensure this works without error.
 8. Access Briefing Book, highlight 2-3 reports. Make sure the reports display properly.

1.8.3.9 DSS and IQ install

1.8.3.9.1 Install DataScan (V4.2)

- DataScan will be bulk copied to the C:\ drive when you run the batch file. Verify a folder C:\Medstat\Dscan exists after the batch file completes.

1.8.3.9.2 Configuring DataScan 4.2

The configuration files are copied for you when you launch the batch file.

- If you need to verify the settings use the information below for comparison.
- Go to **Start, Programs, Utilities, Datascan, Datascan 4.2F IP Config.**
- Make sure the check marks are on Mainframe and TCP/IP.
- Double Click on “**Database, connection & comm. settings**”.

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- Change the “**Description**” to “**DHS Production Database**”. Click on Transactions to make sure “**T**” is set in the entry box. Click on Communications and set the Port to 32764 with the Host Name to hwdcs4.cahwnet.gov.
- Select “**Update**”, Exit out.
- Make sure you can connect using your login id and password for Mainframe.

Check the following:

1. When signing into DataScan, the “counts” in the lower left hand corner should be the following (this is the Production Database):
 - IP Case: 1,132,385
 - Episodes: 25,688,241
 - IP Svc: 24,864,887
 - OP Service: 299,820,128
2. Check the “Services” Database Window in the right hand corner of the opening DataScan screen. The production database is from May 1998 – Oct 2000
3. This will ensure that we are “pointing” to the correct region.
4. Check User Settings
5. Click on *Work Environment, User Settings*
6. Window Size: Click on *Standard*
7. Table Sizes: Click on *Do NOT Count Subsets*
8. Initiate a routine subsetting function to ensure the connection and “COLLKUP is working. Steps are as follows:
 - From the first screen you see when you sign in, click on *Data Selection, Subsetting*.
 - Then, click on *Operations, Select by Record*.
 - *Highlight* the IP Case Table and click on *Select*
 - *Type product* in the “field” box
 - *Double Click* in the “value” box.
 - *Double Click* on “value” 3
 - Click on *Accept, Done, Done (again)*
 - Click on *Prepare!* (upper left hand corner of screen).
 - Make sure no errors occur in this process

1.8.3.10 Install Rumba 2000 (V6.0)

- Go to the \Rumba 2000 folder on the Rollout CD and execute the **SETUP.EXE** file.
- Click ‘**INSTALL**’ for **Rumba 2000** on the **Welcome** screen.
- When prompted enter the **Product Serial Number** from the **Product Key Code.txt** file and click ‘**NEXT**’.
 - **Product serial number = PAC - 00507681**
 - **Product key = RSEVGBFJ -74**
- Click ‘**ACCEPT**’ on the **Software License Agreement** screen.
- Enter the **Name (MISDSS)** and **Company (CA DEPT of HEALTH SVCS)** and click ‘**NEXT**’ on the **User Information** screen.

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- Select **Custom** and click **'NEXT'** on the **Select the Setup Option** screen.
- Next you will need to select which options you would like to have installed.
 - Click **'REMOVE'**
 - Click the (+) next to the **Arpeggio Data Access** in the options list.
 - Highlight **'Third Party ODBC'** and click **'Remove'**.
 - Highlight **'TCP/IP'** and click **'Add'**
 - Scroll down through the list and click the (+) next to **APPC Client**.
 - Click the (+) next to **Mainframe Interface**.
 - Highlight **'802.2 DLC'** and Click **'ADD'**.
 - Click **'NEXT'**.
- Click **'YES'** on the **Setup Dialog** box.
- Click **'NEXT'** on the **Select Private Directories** screen.
- The install shield will now install the options you selected.
- Click **'NO'** on the **Wall Data Registration** screen.
- Click **'YES'** on the **Wall Data Registration Confirmation** screen.
- Click **'NO'** on the **Question** screen.
- Select **'Yes, I want to restart my computer now'** and click **'OK'** on the **Restart Windows** screen.
- After the system reboots, Go to **Start, Programs, Utilities, Rumba, Rumba Administrative Tools, Wall Data PTF Installer**
- Install the **PTF's** from each folder in \Utilities\Rumba\APP and ODB on the **Rollout CD**.
- Go to the Desktop and delete the **Rumba 2000** folder.

1.8.3.11 Configuring Rumba

- The HWDC.cfg file will be copied to the C:\Program Files\Walldata\System folder for you when you run the batch file. Make the edits as instructed during the batch file run to configure the HWDC.cfg file.
- If you need to verify the settings after the batch file runs do the following.
- Click on **Start, Programs, Utilities, Rumba, Rumba Administrative Tools, APPC Configuration**
- Click on **'FILE'** from the **Rumba APPC Configuration** screen.
- Click **'OPEN'**.
- Double click on **'HWDC.CFG'**.
- Double click on **Connections**
- Set the following options:
 - **Link Name:** HWDC
 - **Block ID:** 05D
 - **Node ID:** A00xx (xx = last 2 digits of the LU address)
 - **Destination Address:** 400005DCD350
 - **Remote SAP Address:** 04
 - **Local SAP Address:** 08

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- Set the **Link Options** to **Mainframe**
- Click on the **Advanced Tab**
- Uncheck **Auto Start Link**
- Check **Auto Disconnect Link**
- Uncheck **XID Type 3**
- Click '**OK**'.
- Enter the **LU Address** in the **Control Point Name** Use **DHSNT010 thru 100**
- Double click on the **Local LU's**.
- Enter the **LU Alias** (same as the **Control Point Name**)
- Enter the **LU Name** (same as the **Control Point Name**)
- Click '**OK**'
- Double click on **DBHMTD** in **Side Info**
- Click on arrow next to **Local LU** and select **LU** from list
- Click '**OK**'
- Double click on **DBHMPD** in **Side Info**
- Click on arrow next to **Local LU** and select **LU** from list
- Click '**OK**'
- Close panel
- Click '**YES**' to save changes

1.8.3.12 Configure ODBC32

- Go to **Start, Settings, Control Panel, 32bit ODBC**
- Click on **System DSN** tab
- Click '**ADD**'
- Select '**RUMBA DRDA-32**' and click '**FINISH**'
- Click '**OPTIONS**'
- Set **Catalog Owner** to '**SYSIBM**' and click '**OK**'
- Set **Data Source** to '**DHSPROD**'
- Set **RDB Name** to '**HWDCHMPD**'
- Set **Default Owner** to '**HDHMSP2**'
- Click '**COMMUNICATIONS>>**'
- Set **Mode Name** to '**IBMRDB**'
- Set **Remote LU** to '**DBHMPD**'
- Click '**OK**'
- Click '**ADD**' (This is Optional for most stations unless you are in the Test Lab)
- Select '**RUMBA DRDA-32**' and click '**FINISH**'
- Click '**OPTIONS**'
- Set **Catalog Owner** to '**SYSIBM**' and click '**OK**'
- Set **Data Source** to '**DHSTEST**'
- Set **RDB Name** to '**HWDCHMTD**'
- Set **Default Owner** to '**HDHMSP2**'

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- Click '**COMMUNICATIONS>>**'
- Set **Mode Name** to '**IBMRDB**'
- Set **Remote LU** to '**DBHMTD**'
- Click '**OK**'
- Click '**ADD**'
- Close Control Panel

1.8.3.13 Install MyEureka! (V6.1.3)

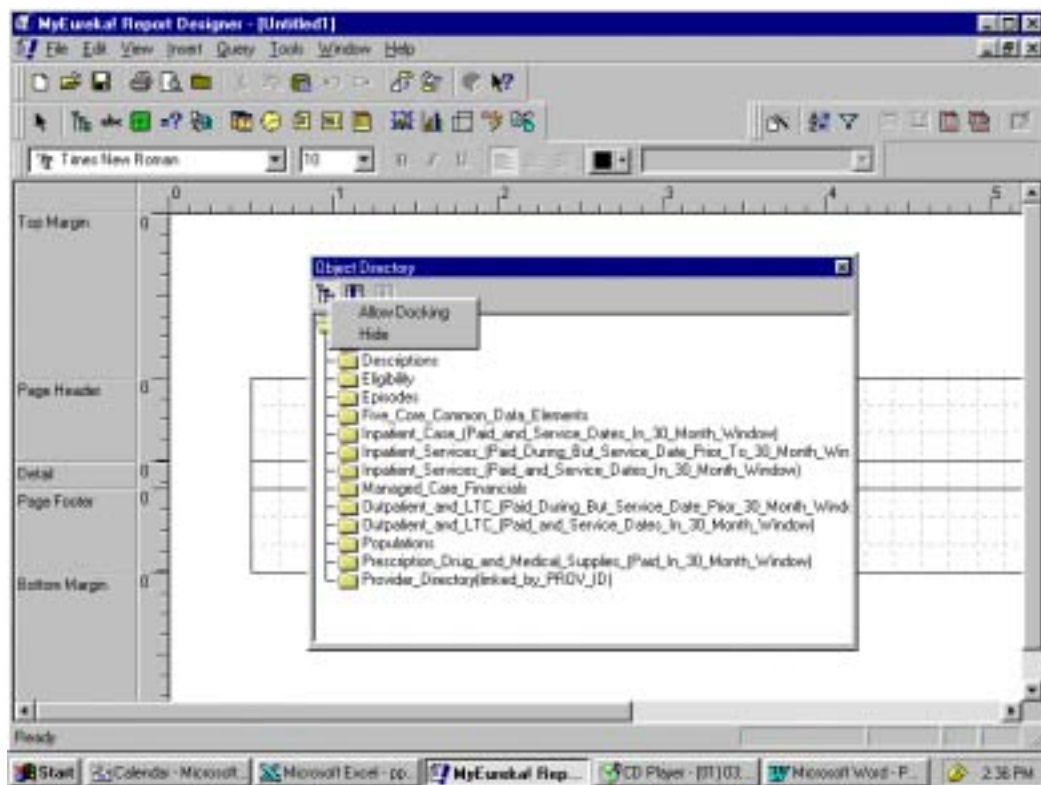
- Go to the **MyEureka!** Folder on the Rollout CD and execute the **LAUNCH.EXE** file.
- Click on '**INSTALL REPORT DESIGNER**'.
- Click '**NEXT**' on the **Welcome** screen.
- Enter the **Product Key** and click '**OK**' on the **Activation Key** screen.
 - **Product key = 0x8b40-bb22-84bc-d2b5-c417-b45b-0778** or you can open \MyEureka\MyEureka_Product_Key.txt file to copy and paste.
- Verify that **Custom Installation** is selected and click '**NEXT**' on the **Setup Type** screen. Then make sure you uncheck the **Sample Databases, and ODBC Help files**.
- Click '**YES**' on the **Confirm New Folder** screen.
- Click '**NEXT**' on the **ODBC Drivers** screen.
- Click '**NEXT**' on the **Program Folder** screen.
- Click '**INSTALL**' on the **Confirm Selection** screen.
- The install shield will now install MyEureka!
- Select '**Yes, I want to restart my computer now**' and click '**FINISH**' on the **Setup Complete** screen.
- The icons, **Medical.IQK**, and **Test.IQR** files will be placed on the PC for you when you run the batch file. Be sure to **Double Click** on the **IQK_Auto.reg** file from the Floppy to update the registry for Auto-updating the Medical.iqk file from the Report Server.

1.8.3.14 Configure MyEureka!

- Go to **Start, Programs, Medstat, MyEureka**
- Cancel out of the **Report Query** screen.
- **Check the following:**

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Make sure the Object directory is a “floating” directory. If “docked” right click on the



Object Directory and “check off” the Docking.

Click on Tools, Preferences:

“Print Charts using Patterns” should be the only default checked.

Click on “Connection”:

Data Source should be “DHSPROD”

Make sure “*Prompt for Data Source at Runtime*” is checked.

Default Metadata File should be: C:\MyEureka\Report Designer\Medical.iqk

Server Name: Type in 158.96.30.7, then click on refresh server

Make sure a Query will run:

Double click on IP Case Table, Click and drag SEX_CD and Record Count into the detail area. Then click on “print preview.” MAKE SURE THE DEFAULT DB COLLECTION IS HDHMSP2 (Production Database). The record count total should be;

Blank = 22,340

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1 = 301,064
2 = 808,981

Check that Report Server is working:

Save the previous query as test.iqr (one field query).

Click on File, Report Server, Submit

Source: File you would like to submit

Click on "Server Information": Make sure the server is 158.96.30.7 (same as in Connection).

Click on *Submit Job*

Check on Job: Click on File, Report Server, then Job Info

Check Status and attempt to retrieve.

Troubleshoot if unable to work

Exit My Eureka and make sure the session is closed:

1.8.3.15 Install SQL SERVER (V7.0)

- Go to the **SQL Server 7.0** CD and it should do Autorun when inserted. If it does not Autorun then access the CD and find Setup.exe to launch.
- Select **Database Server-Standard Edition**
- A box will come up and tell you that it can only install certain components, select **O.K.**
- Select **Next** to continue, Select **Install SQL Server 7.0 Components.**
- Then Select **Database Server - Desktop Edition.**
- Then Select **Local Install - Install to Local Machine.**
- Click on Next to install application into **C:\MSSQL7.**
- When you get to the screen that asks what type of installation Typical, Minimal, or Custom **select Custom.**
- On the **Select Components** screen uncheck everything except **Client Connectivity.**
- Program will begin loading
- Select **Finish** at the end of the install
- The batch file will place the Icons for PMW for you and move the folder labeled **Microsoft SQL Server 7.0 Utilities** into the **Utilities** folder for you.

1.8.3.16 Configure SQL

- Click **Start, Programs, Utilities, Microsoft SQL Server 7.0**
- Click on **Client Network Utility.**
- Select **Add** to add another server
- Set **Server Alias** to **PMW1**
- Set **Computer Name** to **'158.96.30.6'.**
- Make sure that the **Network Libraries** has **TCP/IP** selected

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- Make sure that the **Port Number** is blank
- Select **Add** to add another server
- Set **Server Alias** to **PMW2**
- Set **Computer Name** to '**158.96.30.5**'.
- Make sure that the **Network Libraries** has **TCP/IP** selected
- Make sure that the **Port Number** is blank
- Click '**DONE**'.

1.8.3.17 Install PMW 2000(V1.0)

- Go to the **Rollout CD**, look for **PMW 2000** and execute the **Setup.exe** file.
- Click '**NEXT**' on the **Welcome** screen.
- Click '**NEXT**' on the **Select Components** screen.
- Change the **Program** folder to **PMW2000**, and click '**NEXT**' on the **Select Program Folder** screen.
- Click '**NEXT**' on the **Confirm Installation Settings** screen.
- The install shield will now install PMW.
- Uncheck 'Yes, I want to view the PMW readme file', 'Yes, I want to launch the PMW client program', and click '**FINISH**'.
- The batch file will create icons for PMW for you.

1.8.3.18 Configure PMW 2000

- Launch **PMW 2000**.
- Login with **PMW2000** and password of "**medstat**"
- Set **Server** to '**PMW2**'.
- Set **Database** to '**PMW2000**'.
 1. You will go directly to "Report Control Selector"
 2. Make sure the following are set for defaults:
 3. MCO: Alameda Alliance
 4. Payer: Medicaid Total
 5. Product: All
 6. Eligcat: All
 7. Eligcnty: All
 8. Employer: Medi-Cal/All
 9. Then, click on *OK*.
 10. Now, run a report: Click on *Measures, Effectiveness of Care, Childhood Immunization Status, Administrative*.
 11. Ensure a report is produced.

1.8.3.19 MapInfo Install

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1.8.3.19.1 Install MapInfo (V4.12)

- Go to the **MapInfo** folder on the **Rollout CD** and execute the **SETUP.EXE** file.
- Enter **Name (MISDSS)**, **Organization (CA DEPT of HEALTH SVCS)**, and **Serial Number** and click '**NEXT**' on the **Registration Information** screen.
 - **Serial number = W412838727**
- Verify **Standalone Workstations** and **Standard Installation** and click '**NEXT**' on the **Mapinfo 4.1 Setup** screen.
- Verify **Installation Directory** and click '**FINISH**' on the **Standard Installation** screen.

1.8.3.19.2 Map Configuration

- Go to the **MapInfo** folder on the **Rollout CD**.
- Copy the **California** folder into the **C:\Mapinfo\Data** folder.
- You will need to create shortcuts for MapInfo in two places.
- First on the desktop folder "The MEDSTAT Suite" and then under C:\Winnt\Profiles\All Users\Start Menu\Programs\Medstat. Create a folder under Medstat called MapInfo and then place the shortcut.

Check the following:

1. Open application
2. Click on File, Open table.
3. Make sure that CA information can be accessed from the C:\ Drive. The CA folder should include the following: CA_city.TAB, CA_cnty_TAB, CA_landmrks_TAB, CA_zipbdy, California.TAB.

1.9 Exit Criteria

This process is exited upon successful installation of one or more applications.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

N/A

1.11 Reference Material

N/A

1.12 Policy History

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Established/Revision Date	Established/Revised By	Change Description
4/24/00	John Mulcahy	Policy/Process Established
2/22/01	John Mulcahy/Bruce Maire	Updated to reflect process required for NT machines

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: Server Hardware Configuration	
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1. Server Hardware Configuration

1.1 Overview

Some of the MIS/DSS applications utilize NT servers for their interactive use as well as the installation/update of their respective databases. In addition, two additional special purpose servers service the project need for batch execution of MyEureka! queries and server back-ups. The following servers are housed and maintained at the Health and Human Services Data Center (HHSDC):

IQSS1 – MyEureka Report Server
PAN1 – Panorama View Build Server
PAN2 – Panorama View Client Interactive Server
PMW1 – Performance Measurement Workstation Build Server
PMW2 - Performance Measurement Workstation Client Interactive Server
ARCSRV1 – ArcServeIT Backup Server

1.2 Purpose

This document describes the current hardware configurations on the project NT workstations.

1.3 Scope

This document describes the processes affecting the project NT servers.

1.4 Responsibility and Enforcement

The Tech Support manager is responsible to ensure that this document accurately describes the current Server Hardware configurations and that the maintenance processes described in herein are performed.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

Individuals carrying out this process should have a minimum of 2 years hands-on Network Support experience and similar experience with troubleshooting and resolving Hardware/Software issues on NT platforms. Completion of the MCSE is preferred.

1.7 Entry Criteria

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This process is entered any time an individual needs to check the configuration settings for the MIS/DSS NT Servers.

1.8 Procedure Steps

1.8.1 Installed Server Hardware Configurations

This process documents the NT Server configurations; as such, there are no real procedure steps associated with carrying out this process..

1.9 Exit Criteria

This process is exited after the NT configuration settings have been reviewed.

1.9.1 Exit Exception Criteria

None

1.9.2 Exit Exception Handling

None

1.10 Forms and Subject Examples

The name, location, hardware configuration and software configuration for each of the MIS/DSS NT servers is documented below.

1.10.1 Panorama View Server #1 (PAN1)

Located at HHSDC

Serial Number D908BYD10095

MAC Address 00-80-5F-19-61-36

1.10.1.1 Hardware Configuration:

1. CPU/Memory

Compaq 6000r Proliant rack mounted server with four 450 Mhz Pentium Pro processors, 1024 Kb cache, 2 Gig of DIMM Random Access Memory

2. Storage Devices:

- Compaq 32 bit integrated SCSI Controller for:
No attached devices
- Adaptec 154x PCI SCSI Controller for:
VDS Echo MS-8400 Intertape 3490 Multi-Tape Tower Drive
- Smart 3100es hardware array adapter slot 11 for:

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Internal drive cage containing 12 – 18.2 gig drives (RAID 5 +spare)

**Total Array is 218.4 Gig.

**After RAID 5 is applied there is approximately 191 Gig of drive space.

- Smart 3200 hardware array adapter slot 5 for:
One external array devices with 12 available drive slots
Array has ten 9.1 Gig Compaq SCSI hot swappable drives
**Total Array is 91 Gig, one drive is set as a spare leaving 81.9 Gig available.
**After RAID 5 is applied there is approximately 72.8 Gig of drive space.
- Smart 3200 hardware array adapter slot 6 for:
Array one has twelve 9.1 Gig Compaq SCSI hot swappable drives
Array two has twelve 9.1 Gig Compaq SCSI hot swappable drives (one assigned spare)
**Total Array is 218.4 Gig, one drive is set as a spare leaving 209.3 Gig available.
**After RAID 5 is applied there is approximately 191 Gig of drive space.
- Smart 3200 hardware array adapter slot 7 for:
Array one has twelve 9.1 Gig Compaq SCSI hot swappable drives
Array two has twelve 9.1 Gig Compaq SCSI hot swappable drives (one assigned spare)
**Total Array is 218.4 Gig, one drive is set as a spare leaving 209.3 Gig available.
**After RAID 5 is applied there is approximately 191 Gig of drive space.
- Smart 3200 hardware array adapter slot 5 for:
One external array devices with 12 available drive slots
Array has ten 9.1 Gig Compaq SCSI hot swappable drives
**Total Array is 91 Gig, one drive is set as a spare leaving 81.9 Gig available.
**After RAID 5 is applied there is approximately 72.8 Gig of drive space.
- Smart 3200 hardware array adapter slot 5 for:
One external array devices with 12 available drive slots
Array has ten 9.1 Gig Compaq SCSI hot swappable drives
**Total Array is 91 Gig, one drive is set as a spare leaving 81.9 Gig available.
**After RAID 5 is applied there is approximately 72.8 Gig of drive space.

3. Tape Drive Device

- VDS Echo MS-8400 Intertape drive (3490 Multi-Tape Tower Drive)

4. Monitor, Mouse and Keyboard via switch box

- Compaq v50 15 inch plug-n-play
- Compaq 101 enhanced Keyboard with built in Track ball

5. 3.5 inch floppy drive

6. Compaq CD-ROM drive

1.10.1.2 Software Configuration:

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: Server Hardware Configuration	
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1. NT 4.0 Server 5 user license w\ SP5
2. Diskkeeper 4.0
3. Winzip 7.0
4. InterTape 2.3
5. PCAnywhere 8.0
6. Pilot DSS 5.2
7. Syncsort for NT 1.0
8. DB2/UDB for Workgroup
9. St. Bernard OFM agent

1.10.2 Panorama View Server #2 (PAN2)

Located at HHSDC

Serial Number D818BHL10014

MAC Address 00-80-5F-31-D4-24

Hardware Configuration:

1. CPU/Memory

Compaq 5000 Proliant Tower server with four 200 Mhz Pentium Pro processors, 512 KB cache,
1.1 Gig of DIMM Random Access Memory

2. Storage Devices

- Compaq 32 bit integrated SCSI Controller for:
Two 4.3 Gig SCSI drives mirrored as C:\ drive
DAT 4mm SCSI Tape drive
- Smart 2/P hardware array adapter for:
External Array device with 7 available drive slots
Array has seven 9.1 Gig Compaq SCSI hot swapable drives
**Total Array is 63.7 Gig.
**After RAID 5 is applied there is approximately 55.6 Gig of drive space.

3. Tape Drive Device

- HP DAT 4mm Tape drive

4. Monitor, Mouse and Keyboard via switch box

- Compaq v50 15 inch plug-n-play
- Compaq 101 enhanced Keyboard with built in Track ball

5. 3.5 inch floppy drive

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6. Compaq DC-ROM drive

1.10.2.1 Software Configuration:

1. NT 4.0 Server 5 user license w\ SP5
2. Pilot DSS 5.2
3. Diskeeper 4.0
4. Syncsort for NT 1.0
5. Winzip 7.0
6. InterTape 2.3
7. PCAnywhere 8.0
8. St. Bernard OFM agent

1.10.3 Performance Measurement Workstation Server #1

Located in HWDC at 1651 Alhambra in the Alhambra Plaza

Serial Number

MAC Address

Hardware Configuration:

1. CPU/Memory Compaq ML530r Proliant rack mounted server with two 800 Mhz Pentium III Xeon processors, 256 KB L2 cache, 1 Gig of DIMM Random Access Memory.
 2. Array Smart 2/DH hardware array adapter port 3 for:
 - Two 9.1 gig SCSI drives set as mirrored set for C:\ containing NT 4.0 on FAT16 partition. These two mirrored 9.1 gig drives are partitioned into a 4 gig and a remaining 4.5 gig drives. The first 4 gigs act as C:\ Drive for the NT operating system, the remaining drive is used as S:\ to contain a large Pagefile.sys swap file.
 - One external array device with 7 available drive slots has seven 18.2 Gig Compaq SCSI hot swappable drives **With RAID 5 applied total drive array has 109.2 Gig available as drive E:\
 - Smart 2.DH hardware array adapter port 4 for:
 - Two external array device with 7 available drive slots, each array has seven 18.2 Gig Compaq SCSI hot swappable drives **With RAID 5 applied total drive array has 225 Gig available. 25 Gig is used as Drive D:\ and the remaining 200 Gig is used as F:\.
 - Adaptec 2944UW SCSI adapter with 68 pin external, 68 pin internal, and Wide SCSI 3 internal connections available. Supports VDS Echo MS-8400 tape drive
- Tape Drive Device
- VDS Echo MS-8400 tape drive (3490 Multi-Tape Tower Drive)
3. Monitor, Mouse and Keyboard via switch box
 - Compaq v50 15 inch plug-n-play

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- Compaq 101 enhanced Keyboard with built in Track ball
- 4. 3.5 inch floppy drive
- 5. Compaq DC-ROM drive

1.10.3.1 Software Configuration:

1. NT 4.0 Server 5 user license w\ SP5
2. SQL 7.0 Server 25 user license w\ SP1
3. Diskeeper 4.0
4. Winzip 7.0
5. PCAnywhere 8.0
6. St. Bernard OFM 6.3 agent
7. SyncSort 2.0
8. Perl

1.10.4 Performance Measurement Workstation #2

Located at HHSDC

Serial Number D721HWR10072

MAC Address 00-80-5F-BE-3A-89

1.10.4.1 Hardware Configuration:

1. CPU/Memory

- Compaq 5000r Proliant rack mounted server with two 200 Mhz Pentium Pro processors, 512 KB cache, 1 Gig of DIMM Random Access Memory.

2. Array

- Internal integrated Compaq 32 bit SCSI-2 controller for:
HP DAT 4 mm tape drive
- Smart 2/DH hardware array adapter port 5 for:
Two 2.1 gig SCSI drives set as mirrored set for C:\ containing NT 4.0 on FAT16 partition.
Three 18.2 Gig drives are in the internal drive cage one 18.2 is drive D:\ the second and third are extended volume set for 27 Gig as drive E:\.
One external array device with 8 available drive slots
Array has eight 36.4 Gig Compaq SCSI hot swapable drives
**With RAID 5 applied total drive array has 244 Gig available
The Array is partitioned into drive D:\ = 17 gig, Drive E:\ = 27 gig, and Drive F:\ = 244 gig.

3. Tape Drive Device

- HP DAT 4 mm tape drive

4. Monitor, Mouse and Keyboard via switch box

- Compaq v50 15 inch plug-n-play
- Compaq 101 enhanced Keyboard with built in Track ball

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5. 3.5 inch floppy drive

6. Compaq DC-ROM drive

1.10.4.2 Software Configuration:

1. NT 4.0 Server 5 user license w\ SP5
2. SQL 6.5 Server 25 user license w\ SP5a
3. Diskeeper 4.0
4. Winzip 7.0
5. PCAnywhere 8.0
6. St. Bernard OFM agent

1.10.5 IQ SmartServer

Located at HHSDC

Serial Number: D849CFX10316

MAC Address 00-80-C7-33-BC-F8

1.10.5.1 Hardware Configuration:

1. CPU/Memory

- Compaq 1600r Proliant rack mounted server with one 450 Mhz Pentium Pro processors, 512 KB cache, 524 MEG of DIMM Random Access Memory

2. Storage Devices:

- Compaq 32 bit integrated SCSI Controller for:
Bus 1 Port 1 has 2 - 4.3 Gig non-Hot Swap SCSI Drives
Bus 1 Port 2 has 3 - 9.1 Gig Hot Swap SCSI Drives

3. Monitor, Mouse and Keyboard

- Compaq v50 15 inch plug-n-play
- Compaq 101 enhanced Keyboard
- PS/2 Style Compaq Mouse

4. 3.5 inch floppy drive

5. Compaq CD-ROM drive

1.10.5.2 Software Configuration:

1. NT 4.0 Server 5 user license w\ SP5
2. MyEureka 6.3 Smart Server
3. MyEureka 6.1 Report Designer
4. PCOMM 4.3.1
5. DB2 E for Workgroups

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6. Diskeeper 4.0
7. Winzip 7.0
8. PCAnywhere 8.0
9. St Bernard OFM agent

1.10.6 Arc Server Back-up

Located at HHSDC

Serial Number D912CPW1D119

MAC Address 00-80-C7-33-BC-F8

1.10.6.1 Hardware Configuration:

1. CPU/Memory

- Compaq 1850r Proliant rack mounted server with one 450 Mhz Pentium Pro processors, 512 KB cache, 64 MEG of DIMM Random Access Memory

2. Storage Devices:

- Compaq 32 bit integrated SCSI Controller for:
Bus 1 Port 1 has 2 - 4.3 Gig non-Hot Swap SCSI Drives

3. Tape Drive

- Compaq 35/70 DLT tape library via Compaq Dual Channel SCSI adapter

4. Monitor, Mouse and Keyboard

- Compaq v50 15 inch plug-n-play
- Compaq 101 enhanced Keyboard
- PS/2 Style Compaq Mouse

5. 3.5 inch floppy drive

6. Compaq CD-ROM drive

1.10.6.2 Software Configuration:

1. NT 4.0 Server 5 user license w\ SP5
2. ArcServeIT 6.61 Advanced
3. St. Bernard OFM 5.3
4. Diskeeper 4.0
5. Winzip 7.0
6. PCAnywhere 8.0
7. St Bernard OFM agent

1.11 Reference Material

N/A.

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1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/24/00	John Mulcahy	Policy/Process Established
2/20/01	John Mulcahy	Updated for new PMW configuration.

MEDI-CAL MIS/DSS POLICY/PROCESS	Policy/Process Section: Adhoc Processes Policy/Process Title: Server Performance Monitor	
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1. Server Performance Monitoring

1.1 Overview

Panorama View (PV), Performance Measurement Workstation (PMW) and Report Server require a significant amount of processing power, memory, and storage capacity/retrieval speed to accomplish their tasks properly. MEDSTAT periodically monitors the servers involved with these applications to ensure that sufficient processor, memory, and storage capacity remain.

1.2 Purpose

This document describes the actions taken to monitor the project NT servers to ensure that have sufficient capacity to meet project needs for interactive usage and installations/updates.

1.3 Scope

This document relates only to the three applications (Panorama View, Performance Measurement Workstation and Report Server), that require NT servers to accomplish their interactive and install/update processes.

1.4 Responsibility and Enforcement

The Tech Support manager is responsible to ensure that this process is performed routinely as expected.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

Individuals performing this process must be versed in the interaction of processor availability, memory usage and DASD storage and able to distinguish impacts on one versus another.

1.7 Entry Criteria

This process is entered any time a monitoring process occurs on any project NT server.

1.8 Procedure Steps

1.8.1 CPU Utilization using NT Performance Monitor

Performance Monitor is a graphical tool for measuring the performance of any computer on a network. It provides charting, alerts, and reporting capabilities that reflect both current activity

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as well as an ongoing log. The log allows the capability to open, browse, and chart log files later as if they reflected current activity.

1.8.2 How to launch Performance Monitor

From Start, click on Programs, open the Administrative Tools menu. Click on Performance Monitor to launch the applet. Performance Monitor consists of four main windows, which you display by clicking Chart, Alert, Log, or Report on the View menu. These windows contain different information and have only the menu bar, status bar, and toolbar in common. The F1 key can be depressed to enable the Help for any Performance Monitor command. On the Options menu, Data From is available in any of the four windows. This command is used to switch from the current values against current activity (real time data) to a view where log files can be manipulated. The default is current activity.

To quit Performance Monitor, click Exit on the File menu. An individual chart, alert, log, or report settings or the entire workspace can be saved to a file prior to exit, this allows the exact combination of settings to be retained for future usage.

Note: You can monitor a remote server using Performance Monitor.

1.8.3 To monitor a different computer

1. On the Edit menu, click Add To.
2. In the Add to dialog box, enter the computer name in Computer. Or, click the button at the right end of the box to display the Select Computer dialog box, and select a computer name.
3. Double-click the name of the appropriate domain controller or workgroup to display a list of the servers and workstations connected to it.
4. Select the name of the server that you want to monitor, and click Add.

1.8.4 Settings to use when Monitoring NT Server

When monitoring a system, you are effectively monitoring the behavior of its objects. In the Windows NT operating system, an object is a standard mechanism for identifying and using a system resource. Objects are created to represent individual processes, sections of shared memory, and physical devices. Performance Monitor groups the counters by object type. A unique set of counters exists for the processor, memory, cache, hard disk, processes, and other object types that produce statistical information. Certain object types and their respective counters are present on all systems. However, other counters, such as application-specific counters (such as Exchange), appear only if the computer is running the associated software.

Each object type can have several instances. For example, the Processor object type will have multiple instances if a system has multiple processors. The PhysicalDisk object type has two instances if a system has two disks. Some object types, such as Memory and Server, do not have instances. If an object type has multiple instances, each instance may be used with the same set of counters. The data is then tracked for each instance. Two object types, Process and Thread, have a particularly close relationship. A Windows NT process is created when a program runs.

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A process may be either an application (such as Microsoft Word or Corel Draw), a service (such as Event Log or Computer Browser), or a subsystem (such as the print spooler or POSIX). In addition to an executable program, every process consists of a set of virtual-memory addresses and at least one thread.

Threads are objects within processes that execute program instructions. They allow concurrent operations within a process and enable one process to simultaneously execute different parts of its program on different processors. Each thread running on a system shows up as an instance for the Thread object type and is identified by association with its parent process. For example, if Print Manager has two active threads, Performance Monitor identifies them as Thread object instances Printman ==> 0 and Printman ==> 1.

For MEDSTAT Build Servers the following objects are monitored:

➤ **Processor(s)**

% Processor Time on each CPU>> Processor Time is expressed as a percentage of the elapsed time that a processor is busy executing a non-Idle thread. It can be viewed as the fraction of the time spent doing useful work. Each processor is assigned an Idle thread in the Idle process which consumes those unproductive processor cycles not used by any other threads.

➤ **Processor(s)**

Interrupts/second>> Interrupts/sec is the number of device interrupts the processor is experiencing. A device interrupts the processor when it has completed a task or when it otherwise requires attention. Normal thread execution is suspended during interrupts. An interrupt may cause the processor to switch to another, higher priority thread. Clock interrupts are frequent and periodic and create a background of interrupt activity.

➤ **Memory**

Pages/Second>> Pages/sec is the number of pages read from the disk or written to the disk to resolve memory references to pages that were not in memory at the time of the reference. This is the sum of Pages Input/sec and Pages Output/sec. This counter includes paging traffic on behalf of the system Cache to access file data for applications. This value also includes the pages to/from non-cached mapped memory files. This is the primary counter to observe if you are concerned about excessive memory pressure (that is, thrashing), and the excessive paging that may result.

➤ **Logical Disk**

Average disk Queue Length >> Average Disk Queue Length is the average number of both read and write requests that were queued for the selected disk during the sample interval.

1.8.5 Performance Monitor Usage

NT Performance Monitor is used during the installation/update process of MEDSTAT Database Applications. The information gathered is useful when verifying the performance of a server during high stress and resource intense processes. Performance Monitor can be set to log

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continuously during the build. MEDSTAT has opted to run Performance Monitor and take periodic snap shots during builds. The data collected is exported and then imported to an MS Excel spreadsheet. The spreadsheet allows us to monitor for trends. To export data to a spreadsheet or database program:

1. On the File menu, click Export. The Performance Monitor - Export As dialog box appears.
2. In Save as, click either Export TSV Files (*.tsv) or Export CSV Files (*.csv).
3. Enter a path name (including the appropriate extension for the column delimiter) for the file that you want to export, and click Save.

You can now open the exported file from within your spreadsheet or database program.

Note: Tabs separate the columns in TSV files. Commas separate the columns in CSV

1.9 Exit Criteria

This process may be exited upon successful completion of each step in the procedure.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

N/A

1.11 Reference Material

N/A.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/10/00	John Mulcahy	Policy/Process Established